GREEN RIVER/DUWAMISH

GEOGRAPHIC RESPONSE PLAN

(GRD GRP)

SECTION 4

Response Strategies and Priorities

October 2015

4.1 CHAPTER INTRODUCTION

This chapter provides information on GRP response strategies and the order (priority) they should be implemented, based on Potential Oil Spill Origin Points (POSOP) and their proximity to sensitive resources. Area maps, sector maps, and information on staging areas and boat launch locations are also provided in this chapter. During a spill incident, GRP response strategies should be implemented as soon as possible after priority consideration of, and attention to, source containment options. Unless circumstances unique to a particular spill situation dictate otherwise, the priority tables in Section 4.3 should be used to decide the order that GRP strategies are deployed. The downstream movement of oil and the time it takes to mobilize response resources to deploy GRP strategies must always be considered when setting implementation priorities. Response equipment type and location information can be found on the Western Response Resource List (WRRL). The WRRL is available online at http://www.wrrl.us. Information on resources at risk, sensitive areas, and flight restrictions can be found in Chapter 6 of this plan. Information on protection techniques can be found in Appendix A. Information on shoreline countermeasures can be found in the Northwest Area Shoreline Countermeasures Manual (NWACP Section 9420). The Northwest Area Contingency Plan (NWACP) is available online at http://www.rrt10nwac.com/NWACP/Default.aspx.

The GRP strategies provided in this chapter have been created to reduce spilled oil's impact on sensitive resources. They are not everything that should or could be done during a response to lessen the chance of injury to natural, cultural, and economic resources at risk from oil spills. Although designed to be implemented during the initial phase of an oil spill, GRP strategies may continue to be used throughout a response at the discretion of the Incident Commander or Unified Command.

4.1.1 On-site Considerations

Before Deploying a GRP Strategy (Questions to Ask)

- Are conditions safe? Response managers and responders must first determine if efforts to implement a response strategy would pose an undue risk to worker safety or the public, based on conditions present during the time of the emergency. No strategy should be implemented if doing so would threaten public safety or present an unreasonable risk to the safety of responders.
- Has initial control and containment been sufficiently achieved? Source control and containment of the spill at or near the source of a spill are always higher priorities than the deployment of GRP response strategies, especially when concurrent response activities are not possible.
- How far downstream or out into the lake or marine environment is the spilled oil likely to travel before response personnel will be ready and able to deploy GRP response strategies?

- Are permits required? Consult the Northwest Area Contingency Plan Permit Summary Table (NWACP Section 9401) for information specific to your location and circumstance.
- Will equipment or vehicles need to be staged on or near a roadway? If so, traffic control may be required. Contact the Washington State Patrol or local county, municipality, or tribal police for assistance. At minimum, Washington Department of Transportation (WADOT) guidelines for work zone traffic control should be followed when working on or near a roadway.

0	Auburn Police	(253) 288-2121
0	Black Diamond Police	(253) 631-1012
0	Kent Police	(253) 856-5800
0	King County Roads	(206) 296-8100
0	King County Sherriff	(206) 296-4155
0	Renton Police	(425) 235-2121
0	Tukwila Police	(206) 433-1808
0	Washington State Patrol (District 2)	(425) 401-7788

During Strategy Implementation (Things to Remember)

- On-scene conditions (weather, currents, tides, waves, river speed, and debris) may require that strategies be modified in order to be effective. There is a significant chance that weather and conditions experienced at a particular strategy location during an actual spill event will be different from that when data was gathered during field visits. Response managers and responders must remain flexible and modify the strategies provided in this chapter as needed to meet the challenges experienced during an actual response.
- Certain strategies may call for access points or staging areas that are not easily reached at all times of the year or in all conditions.
- Oil containment boom must be free of twists, gaps, and debris in order to remain effective.
- The GRP response strategies provided in this chapter were designed for use with persistent heavy oils that float on water and may not be suitable for other petroleum products or hazardous substances.

After Strategy Implementation (Things to Understand)

- Oil containment boom should be maintained and periodically monitored to ensure its effectiveness. Changes in river or current speed will likely require modifications to boom deflection angles (see Table 4-1). Depending on conditions, some booming strategies may require around-the-clock tending.
- Although designed for implementation during the initial phase of an oil spill, GRP strategies may continue to be deployed and implemented throughout the entire lifespan of a response, as determined appropriate and necessary by the Incident Commander or Unified Command.

Water Speed and Boom Deflection Angle

Measure the speed that water is moving by anchoring a line with two floating markers/buoys attached that are spaced 100 feet apart. Time the movement of floating debris between the two buoys, and then use Table 4.1 to estimate the water speed based on the travel time of the debris between the two buoys. You can also measure 100 feet along a straight portion of river bank or shoreline, and time the movement of debris between those points, but this method is generally less accurate than using the buoys. The maximum boom deflection angle is also provided in the table, based on the water speed measurements.

 Table 4-1: Water Speed Drift Measurement Table

Time to Drift 100 Feet (seconds)	Velocity (ft/sec)	Velocity (m/sec)	Velocity (knots)	Max Boom Deflectio∩ Angle (degrees)	Boom required for 100-foot Profile to Current (feet)	Anchors needed if Placed Every 50 feet (number)
6	16.7	5.1	10.00	4.0	1,429	30
8	12.5	3.8	7.50	5.4	1,071	22
10	10.0	3.1	6.00	6.7	857	18
12	8.3	2.5	5.00	8.0	714	15
14	7.1	2.2	4.29	9.4	612	13
17	5.9	1.8	3.53	11.4	504	11
20	5.0	1.5	3.00	13.5	429	10
24	4.2	1.3	2.50	16.3	357	8
30	3.3	1.0	2.00	20.5	286	7
40	2.5	0.8	1.50	27.8	214	5
60	1.7	0.5	1.00	44.4	143	4
>86	≤1.2	≤0.35	≤0.70	90.0	100	3

Source: Oil Spill Response in Fast Currents. A Field Guide. U.S. Coast Guard Research and Development Center. October, 2001

4.1.2 Historical River Streamflow Ranges

Gage/stream-flow data from U.S. Geological Survey (USGS) was used to determine the mean monthly river discharge for the Green River/Duwamish. River discharge is recorded in cubic feet per second (cfs); velocities in miles per hour (mph) or nautical miles per hour (knots) are not available. Table 4.1 provides information that can be used to calculate river velocities based on the time it takes a floating object to drift 100 feet downstream from any given point in a river or creek. Additional information on calculating river velocities can be found in the Northwest Area Contingency Plan, Section 9302. Information on USGS river gage readings can be found online at http://maps.waterdata.usgs.gov/mapper/index.html.

Table 4-2: Historic streamflow for Green River/Duwamish

	Monthly average flow in Cubic Feet	per Second (cfs)		
	Green River at Howard Hanson USGS 12105900 (data from 1960 to 2013)	Green River at Auburn USGS 12113000 (data from 1961 to 2013)		
January	1,580	2,370		
February	1,470	2,050		
March	1,150	1,690		
April	1,340	1,820		
May	1,270	1,650		
June	755	1,060		
July	407	536		
August	262	311		
September	329	386		
October	538	652		
November	1,260	1,630		
December	1,500	2,040		

GREEN RIVER/DUWAMISH GRP

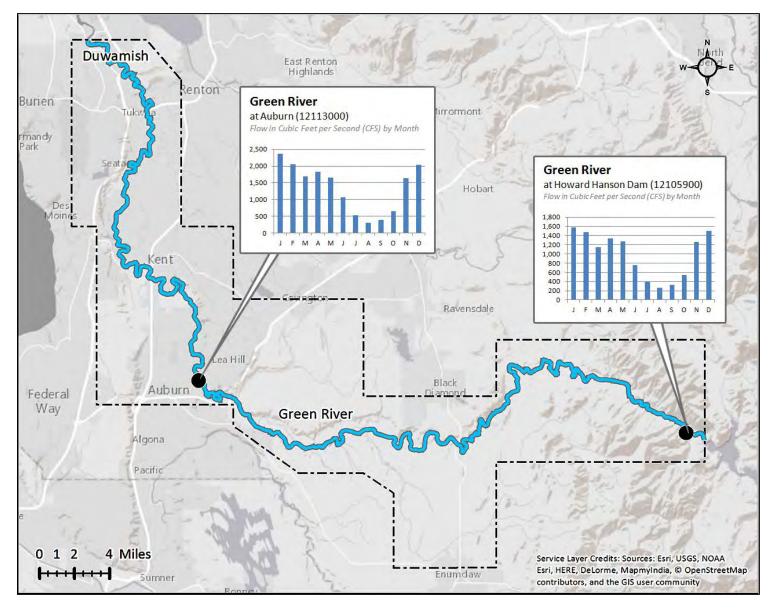


Figure 4-1: USGS Mean Monthly Discharge Measurements for Green River/Duwamish

CHAPTER 4 33

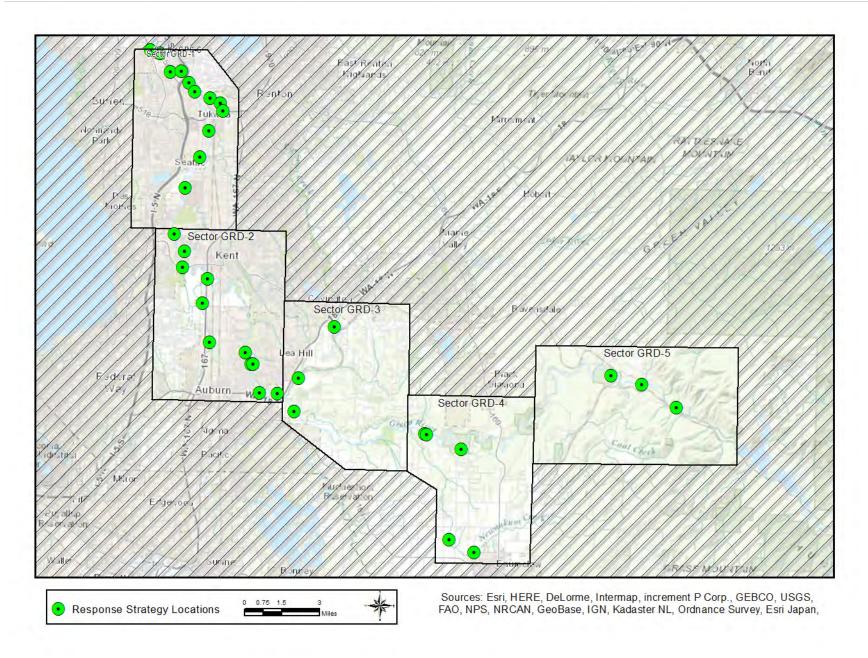
OCTOBER 2015

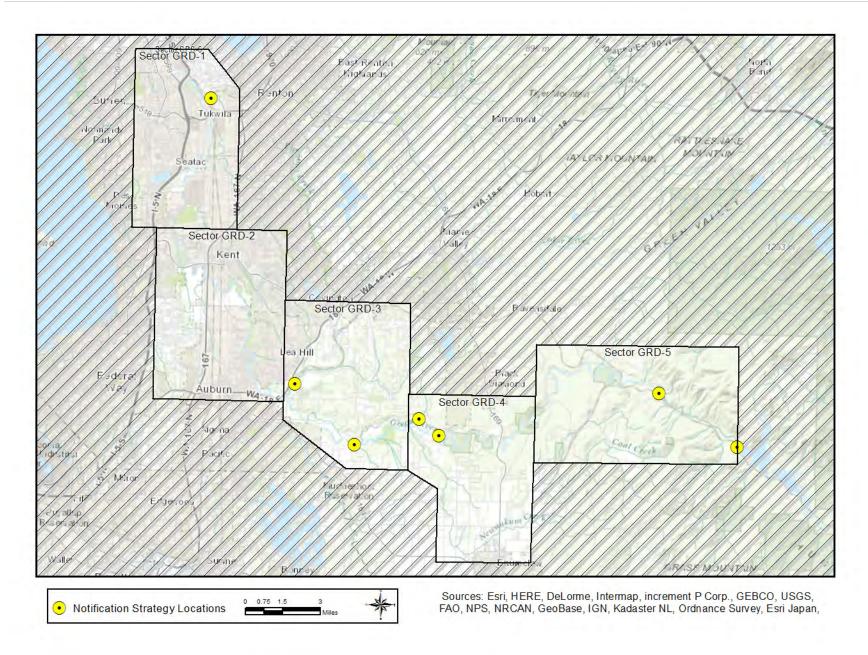
4.2 AREA OVERVIEW MAPS

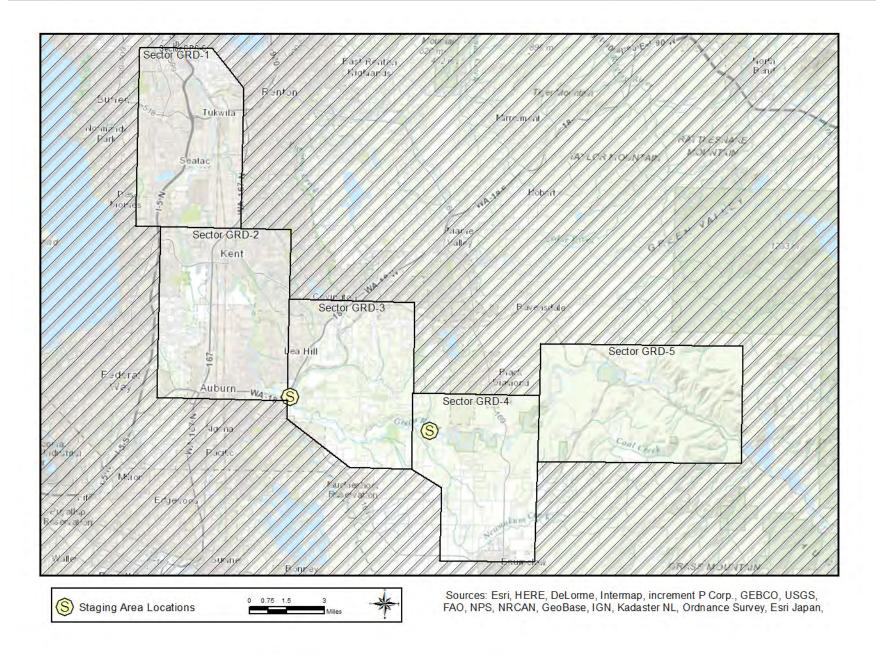
The following maps provide a geographic overview of the Green River/Duwamish GRP area. Sector maps in Section 4.4 of this chapter provide more detail on the location of response strategies, notification strategies, staging areas, boat launch locations, and potential oil spill origin points. Detailed information for each location can be found in the matrices of Section 4.5 or in the chapter appendices. Priority tables for potential oil spill origin points can be found in Section 4.3.2.

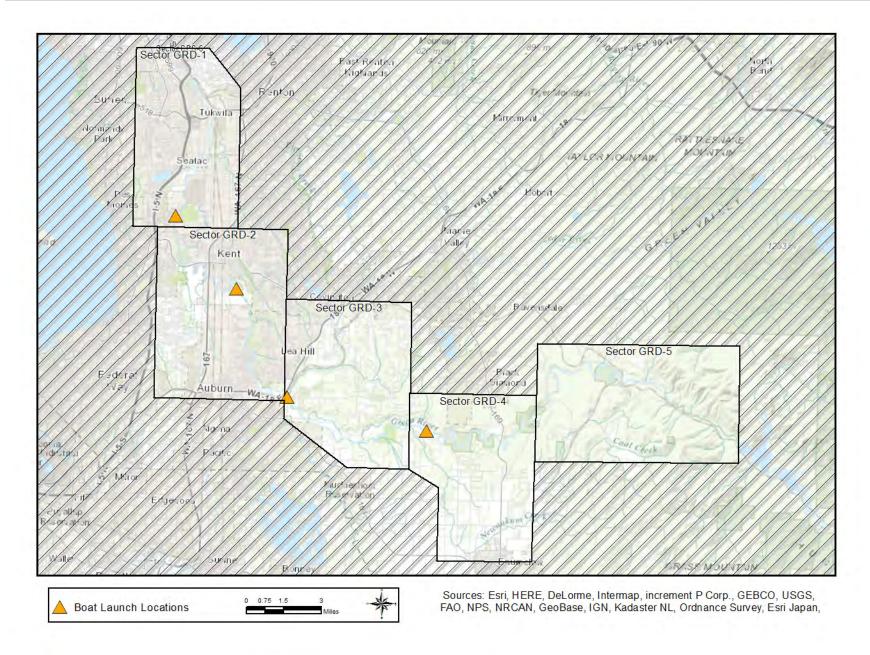
The following area maps are provided for reference:

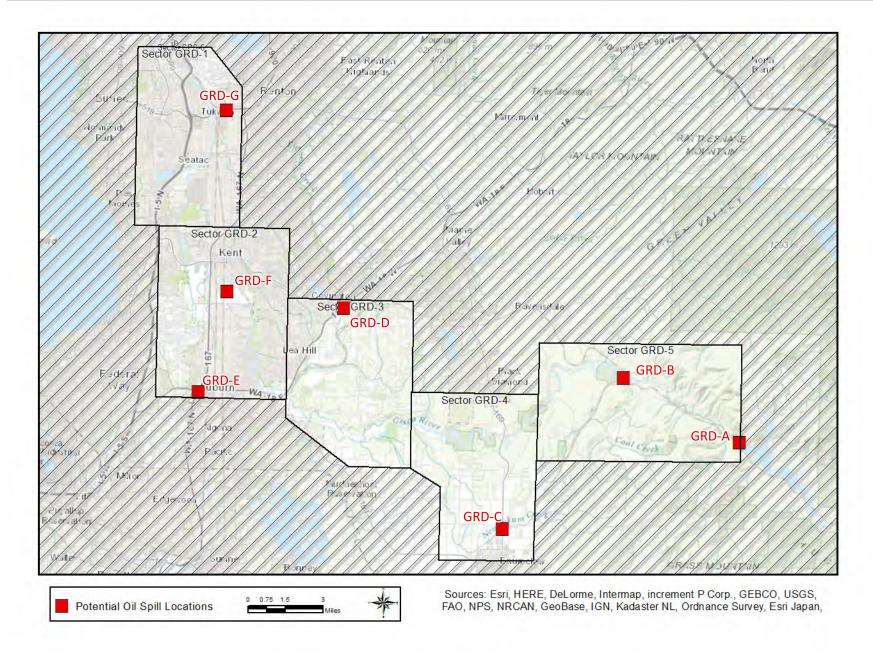
- Response Strategy Locations
- Notification Strategy Locations
- Staging Areas
- Boat Launch Locations
- Potential Oil Spill Origin Points











4.3 STRATEGY AND RESPONSE PRIORITIES

4.3.1 General Response Priorities

The following list provides the order of response priorities after an oil spill in the Green/Duwamish area.

- <u>Safety is always the number one priority</u>. Do not implement GRP strategies or take actions that will unduly jeopardize public, worker, or personal safety.
- Notify local public health and safety personnel.
- Control and contain the source of the spill; mobilize resources to the spill location. **Sour**ce control and containment are a higher priority than the implementation of GRP strategies.
- Determine the priority or order in which GRP strategies should be implemented based on the location of the spill or affected area. Priorities based on Potential Oil Spill Origin Points are included in this chapter and should be used unless the situation or circumstances dictate otherwise (see Section 4.3.2).
- As response resources become available, implement the GRP Strategies in order of priority.
- In Washington State, if strategy implementation reduces, interrupts, or diverts the flow of water in streams, including the installation of a culvert block or underflow dam, an Emergency HPA must be obtained from WDFW (24-hour pager: (360) 534-8233).

4.3.2 Strategy Priorities based on Potential Spill Origin Points

POSOPs are geographic locations that have a defined list of response strategy implementation priorities listed in a matching table of Section 4.3. The placement of each POSOP is often based on spill risks in the area, including oil pipelines, railways, highways/roadways, tributaries, and vessel movements. Intersections of two or more of these risk locations typically represent a higher spill risk than any one individually, increasing the probability of an oil spill. Occasionally POSOPs are generalized to ensure implementation priorities are developed throughout an entire planning area.

These points are displayed on area overview and sector maps as red boxes. In establishing response priorities during a response, or selecting an appropriate POSOP, the downstream and tidal movement of spilled oil and the time it takes to mobilize and deploy response resources must be considered. Generally, GRP strategies should first be implemented downstream, well beyond the furthest extent of the

spill, with deployments continuing upstream towards the spill source and in some cases slightly beyond. POSOPs are alphabetically designated.

The following tables provide the strategy implementation order for Potential Oil Spill Origin Points in the Green River/Duwamish area: points GRD-A, GRD-B, GRD-C, GRD-D, GRD-E, GRD-F, GRD-G and GRD-H. These priority tables were determined using a combination of variables, including: notification time, travel time for responders and equipment, average and seasonal flow rates, average winds, tides or currents, deployment time, proximity to the spill source, and other considerations.

Source control and containment are a higher priority than GRP strategy implementation

Table 4-3: Priority Table GRD-A (Howard Hanson Dam GRD-64.6)

	GRD-A (Howard Hanson Dam GRD-64.6)										
Implementation Priority	Strategy Number	Boom Length	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)						
1	GRD-57.0	600	28	62	95						
2	GRD-59.1	200	28	63	97						
3	GRD-61.0	450	28	63	99						
4	GRD-44.3	2100	27	62	93						
5	GRD-41.5	500	27	62	91						
6	6 GRD-41.4		27	62	89						
7	GRD-34.4	1200	26	61	87						

Table 4-4: Priority Table GRD-B (Kanaskat-Palmer Rail Bridge GRD-57.9)

	GRD-B (Kanaskat-Palmer Rail Bridge GRD-57.9)										
Implementation Priority	Strategy Number	Boom Length	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)						
1	GRD-44.3	2100	27	62	93						
2	GRD-41.5	500	27	62	91						
3	GRD-41.4	500	27	62	89						
4	GRD-57.0	600	28	62	95						
5 GRD-33.5		1200	26	61	85						
6	GRD-34.4	1200	26	61	87						

Table 4-5: Priority Table GRD-C (Newaukum Creek NWKC-9.4/GRD-40.7)

	GRD-C (Newaukum Creek NWKC-9.4/GRD-40.7)										
Implementation Priority			Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)						
1	GRD-29.8	200	25	60	77						
2	GRD-30.5	400	25	60	79						
3	3 GRD-30.6		25	60	81						
4	GRD-32.2	1000	25	61	83						
5	GRD-33.5	1200	25	61	85						
6	GRD-34.4	1200	26	61	87						
7	7 NWKC-6.4		27	64	105						
8	NWKC-7.9	100	27	64	107						

Table 4-6: Priority Table GRD-D (Big Soos Creek BSOO-6.0/GRD-33.7)

	GRD-D (Big Soos Creek BS00-6.0/GRD-33.7)											
Implementation Strategy Priority Number		Boom Length	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)							
1	GRD-23.9	400	25	59	75							
2	GRD-29.8	200	25	60	77							
3	GRD-30.5	400	25	60	79							
4	GRD-30.6	1100	25	60	81							
5	GRD-32.2	1000	25	61	83							
6	GRD-33.5	1200	25	61	85							
7	7 BS00-1.3		26	56	47							
8	BS00-5.3	100	26	56	49							

Table 4-7: Priority Table GRD-E (Mill Creek at WA-18 and WA-167 MILL-6.0/GRD-21.7)

GRD-E (Mill Creek at WA-18 and WA-167 MILL-6.0/GRD-21.7) Sector Map Strategy Matrix **Strategy Details Implementation** Strategy Boom **Priority** Number Length (Page #) (Page #) (Page #) GRD-13.2 GRD-15.0 GRD-17.1 GRD-19.4 GRD-20.5 GRD-21.7 MILL-1.6 MILL-3.4

Table 4-8: Priority Table GRD-F (East Valley Highway Bridge GRD-25.4)

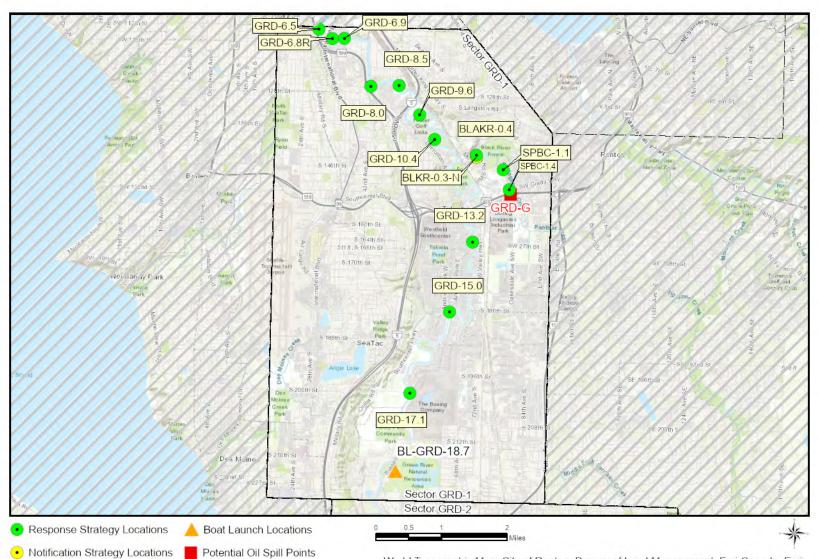
	GRD-F (East Valley Highway Bridge GRD-25.4)										
Implementation Priority	1		Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)						
1	GRD-9.6	700	24	57	59						
2	2 GRD-10.4		24	58	61						
3	GRD-13.2	200	24	58	63						
4	GRD-15.0	300	24	58	65						
5	GRD-17.1	300	24	58	67						
6	GRD-19.4	1000	25	59	69						
7	7 GRD-20.5		25	59	71						
8	GRD-21.7	300	25	59	73						

Table 4-9: Priority Table GRD-G (Springbrook Creek at I-405 BLAKR-1.4/GRD-11.0)

GRD-G (Springbrook Creek at I-405 BLAKR-1.4/GRD-11.0)										
Implementation Priority	Strategy Number	Boom Length			Strategy Details (Page #)					
1	GRD-6.8R	600	24	56	51					
2	GRD-6.9	900	24	57	53					
3	GRD-8.0	300	24	57	55					
4	GRD-8.5	100	24	57	57					
5	GRD-9.6	700	24	57	59					
6	GRD-10.4	200	24	58	61					
7	BLAKR-0.4	300	24	56	45					
8	SPBC-1.4	100	24	64	111					
9	SPBC-1.1	200	24	64	109					

Table 4-10: Priority Table GRD-H (I-5 Bridge GRD-8.9)

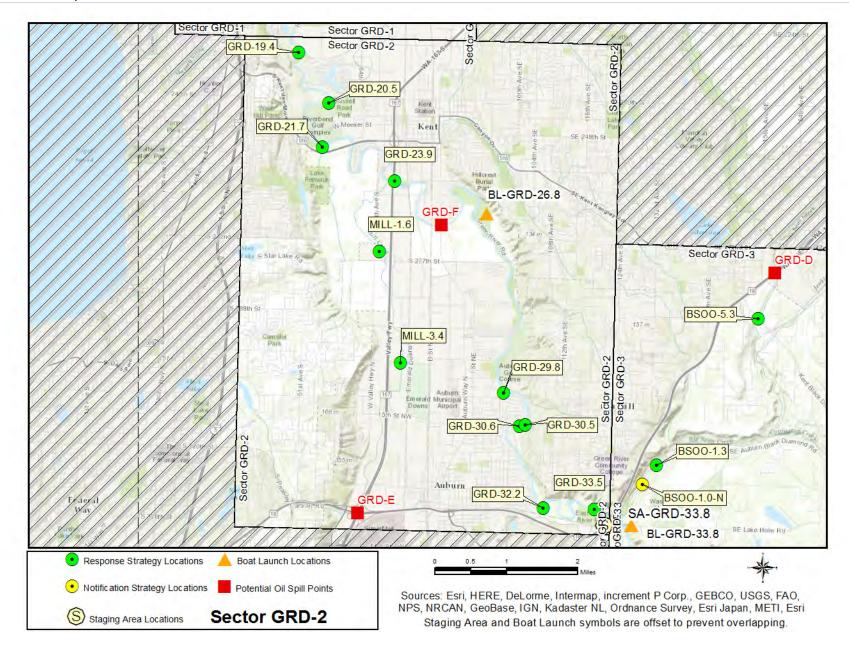
GRD-H (I-5 Bridge GRD-8.9)										
Implementation Priority	Stra Nun	tegy ıber	Boom Length	Sector Map (Page #)	Strategy Matrix (Page #)	Strategy Details (Page #)				
1		See C	entral Puget Sound GRP for more strategies on the Duwamish							
2	GRD-	-6.8R	600	24	56	51				
3	GRD-6.9		900	24	57	53				
4	GRD-8.0		300	24	57	55				
5	GRD-8.5		100	24	57	57				

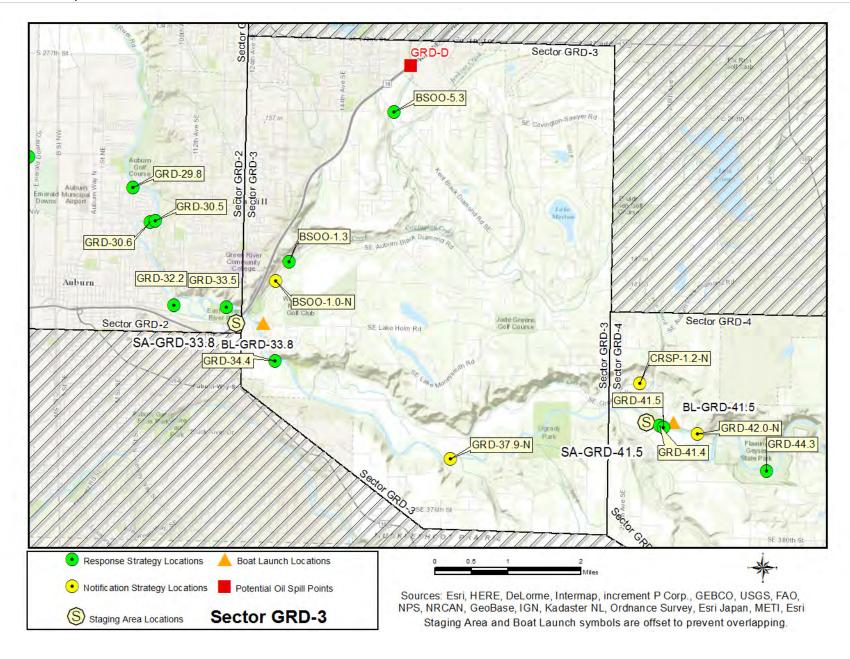


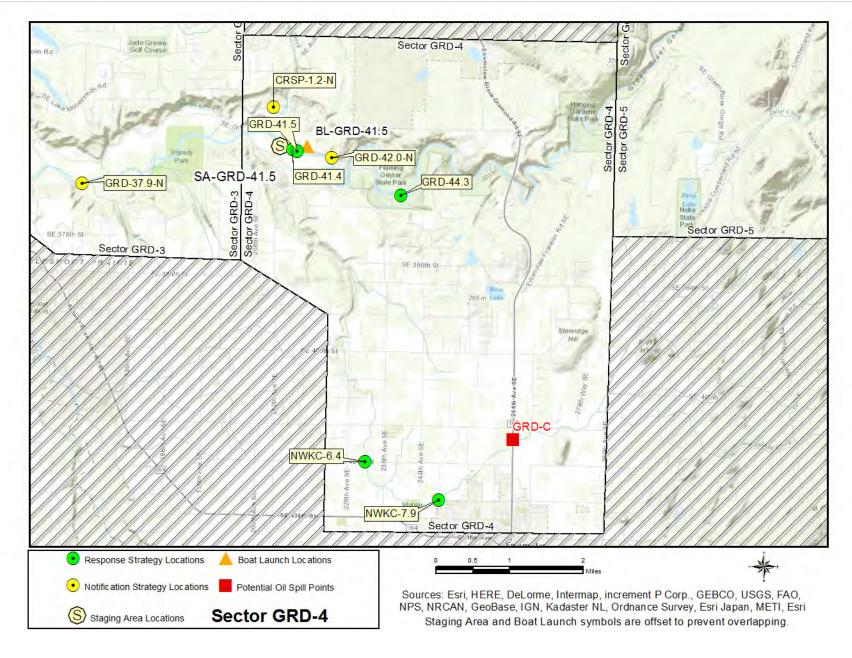
World Topographic Map: City of Renton, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

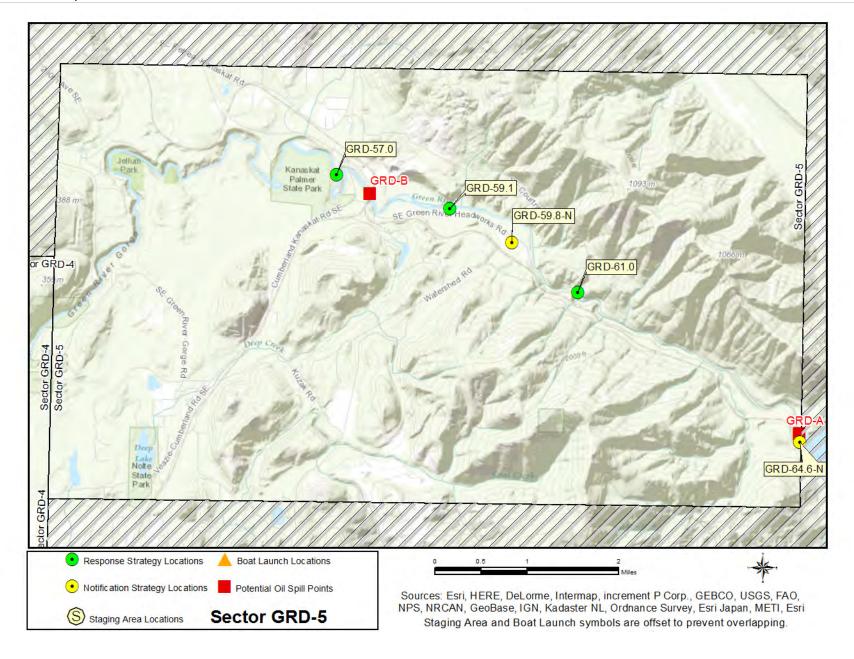
Sector GRD-1

Staging Area and Boat Launch symbols are offset to prevent overlapping.





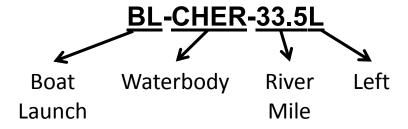




4.5 MATRICES

4.5.1 Naming Conventions (Short Names)

Each strategy, staging area, and boat launch location in this document has been given a unique "Short Name" which includes one to six letters denoting the associated waterbody. Following the letters are numbers that specify the location. On rivers or other linear waterbodies, the location is named by river mile: the distance from the mouth of the river or creek upstream to the site location. Some short names indicate whether the site is located on river right, river left, or mid-river by an "R", "L" or "M" after the river mile. On lakes, the numbers indicate the location by shoreline mile, typically starting at the northernmost point and increasing clockwise around the lake. In marine areas, the numbers do not have a geographic meaning. Notification strategies are indicated by an "-N" at the end of the name. Staging Areas and Boat Launches are indicated by an "SA-" or "BL-" prefix.



Short name designations used within this plan include:

BLAKR = Black River MILL = Mill Creek N = Notification Strategy

BSOO = Big Soos Creek NWKC = Newaukum Creek SA = Staging Area

CRSP = Crisp Creek SPBC = Springbrook Creek BL = Boat Launch

GRD = Green River/Duwamish

4.5.2 Response Strategy Matrices

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
BLAKR-0.4	Black River Pump Station 47.47543 -122.24518	Collection, Exclusion	Boom 300ft	No	Onsite Use parking lot on south bank off Monster Rd and private access road to north bank.	Estuary Resources, Fish Ladder(s), Pump Station	Sensitive wetland and nesting area.	50	71
BS00-1.3	Big Soos Creek 47.31339 -122.16405	Collection	Boom 200ft, Sorbent 200ft	No	Onsite Facilities and parking just downriver at Soos Creek Hatchery. Small driveway area at site.	Fish Hatchery, Salmon (Coho, Chinook and Chum), Water Intakes	Single-lane driveway bridge crossing the creek. Low banks.	52	73
BS00-5.3	Big Soos Creek at Kent Black Diamond Rd 47.34364 -122.13440	Collection	Boom 100ft, Sorbent 100ft	No	Onsite Gravel turnaround 100ft SE of site.	Downstream Resources, Fish Hatchery, Habitat Restoration Site/Project, Salmonids, Sensitive Resources Nearby, Wetlands	Fast road. 100' vegetated path from driveway to bank. Some access from property N upstream.	52	75
GRD-6.5	Cecil B. Moses Park 47.50248 -122.29731	Collection, Deflection	Boom 400ft	No	Onsite Parking area in Cecil B Moses Park and dead end of S 112th St	Estuary Resources, Habitat Restoration and Mitigation Site, Sensitive Resources	Use caution in park areas at night/weekend	50	77

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-6.9	Duwamish Garden 47.50056 -122.28900	Collection, Deflection	Boom 900ft	Yes	Onsite Parking area next to Green River Trail. Can hand- launch boat from trail edge at Point A.	Estuary Resources, Habitat Restoration and Mitigation Site, Sensitive Resources Nearby	Contact King County DPNR to see if bollards can be removed to get equipment on trail	50	79
GRD-8.0	Allentown Bridge 47.49011 -122.28006	Collection	Boom 300ft	No	Onsite Stage at Tukwila Community Center. Can also cut bollards to Green River Trail to drop equipment.	Estuary Resources, Salmon Habitat	Bank more accessible in low water. Be aware of sloughing.	50	81
GRD-8.5	Codiga Park 47.49045 -122.27079	Exclusion	Boom 100ft, Sorbent 100ft	Yes	Onsite Facilities and parking. Move small log to drive hand-launch boat down trail to water's edge. Very shallow.	City Park, Habitat Restoration and Mitigation Site, Salmon Habitat	Some tidal influence (~2 ft). Use waders/plywood in low water. Trail can get muddy.	50	83
GRD-9.6	57th Ave S Mini Park 47.48407 -122.26391	Collection	Boom 700ft	Yes	Onsite Can drive trailered hand-launch boat to water's edge through grass. 4' wide gap between log and blackberry.	Estuary Resources, Salmon Habitat	River left has small park with easy grassy slope and mud banks. River right is Foster Golf Links. Vac truck access on both sides, bring hose extension when muddy.	50	85

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-10.4	Foster Golf Links Bridge 47.47871 -122.25887			No	Onsite Parking and facilities of golf course. Use paved trails to move equipment/vac trucks.	Downstream Resources, Estuary Resources, Salmon Habitat	Popular public golf course with busy golf cart trails.	50	87
GRD-13.2	Strander Bridge at Bicentennial Park 47.45627 -122.24576	Collection	Boom 200ft	Yes	Onsite Trail access from Bicentennial Park. Facilities and small parking area.	Downstream Resources	High waters can reach bridge bottom. Bridge height 7' from trail.	50	89
GRD-15.0	S 180th at Andover Park 47.44074 -122.25282	Collection	Boom 300ft	Yes	Onsite Stage in parking lot. Hand-launch boat from Van Doren's Landing (3.7 mi upstream)	Downstream Resources, Salmon Habitat	BNSF tracks between strategy and parking lot, use caution. Parking lot belongs to Continental Mills (800) 426-0955, inform them of situation during work hours. Can also use alternate trail access 800 ft east on S 180th St for wider vehicles.	50	91
GRD-17.1	Three Friends Fishing Hole 47.42264 -122.26512	Collection	Boom 300ft	Yes	Onsite Public flush restrooms and parking on-site. Hand-launch ramp at Van Doren's Landing 1.6 mi upstream.	Downstream Habitat, Downstream Resources	Path is paved but narrow clearance, use ATV. Heavy vegetation on banks. Levee setback planned in area, adjust location as appropriate.	50	93

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-19.4	Russell Woods Park 47.39569 -122.27358	Collection	Boom 1000ft	No	Onsite Small parking lot 500 ft S of bridge. Hand-launch boat ramp at Van Doren's Landing 0.7 mi downstream.	Downstream Resources, Salmonid Concentrations and Habitat, Waterfowl Concentrations, Wetland Habitat	Can use hand-launch boat instead of line gun if water is high enough, watch for woody debris in channel.	51	95
GRD-20.5	Riverbend Golf Course 47.38557 -122.26428	Collection	Boom 600ft	Yes	Onsite Boat launch 1.8 mi downstream at Van Doren's Landing. Stage boom onsite river right or use golf course.	Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat, Waterfowl, Wetlands	Do not deploy in low water. Western bank thick vegetation/blackberries. In-river woody debris will prevent boat use in low water.	51	97
GRD-21.7	Mullen Slough Mouth 47.37655 -122.26581	Collection, Exclusion	Boom 400ft, Sorbent 100ft	Yes	Onsite Hand-launch ramp at Van Doren's Park is 3 mi downstream. Use trail/golf course to stage boom.	Downstream Resources, Slough and Marsh Habitat	During rainy season use workboat. In dry season use plywood across slough and line gun. High flow from slough during rainy season.	51	99
GRD-23.9	Hwy 167 Bridge at Foster Park 47.36995 -122.24406	Collection	Boom 400ft	No	Onsite Use Foster Park and Green River/Interurban Trail for staging. Horsehead Bend Boat Launch 2.9 mi upstream.	City Park, Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat	Use workboat if water level allows. Lots of blackberry on south bank. Anchor high on trail initially, then cut path to lower the anchor point if time allows.	51	101

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-29.8	Dykstra Park 47.32748 -122.21017	Collection	Boom 200ft	No	Onsite Dykstra public park has paved trails to bridge, cut bollards to access. N section of park has small paved area.	City Park, Downstream Resources, Habitat Restoration Site/Project, Pump Station, Salmonids	Ped bridge connecting 2 parks. Easy access to water on N bank. Steep climb + vegetation on S bank.	51	103
GRD-30.5	North Green River Park Roadside 47.32102 -122.20346	Collection	Boom 400ft	Yes	Onsite Stage boom at north bank. Launch boat in park. Collect from 102nd Ave.	Restoration	North bank trail access from Pike St NE at Riverview Dr NE (47.3206, -122.2097). Popular spot with fishermen and campers.	51	105
GRD-30.6	North Green River Park 47.32076 -122.20507	Collection	Boom 1100ft	Yes	Onsite Cut bollards at Garden/102 Ave SE dead-end to access beach. North bank trail access at Pike St NE at Riverview Dr.	Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Salmon Habitat, Waterfowl Concentrations, Wetland Habitat	Be aware of fishermen on banks and homeless camping in park. To access north bank: 1. After Harvey Rd becomes 15th St NW, turn left at the first light on I St NE. (0.1 mi) 2. Take the next right on 14th St NE (243 ft) 3. In 0.4 mi the road will curve left, just past Pike St NE. Trail access is on the right, marked "Fishing Access Only". 4. Cut gate and drive to trail. 5. Take a left and follow trail 0.3 mi to stairs behind 1610 Riverview Dr NE.	51	107

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-32.2	Area 47.30423 -122.19751		1000ft	Yes	Onsite 10K lb limit on steel plate on access rd close to site. Can trailer hand-launch boat to bank.	Bird Habitat, Downstream Resources, Habitat Restoration and Mitigation Site, Riparian Vegetation, Waterfowl Concentrations, Wetland Habitat	Beach can disappear in high water. Be aware of fishermen on banks and homeless camping in park.	51	109
GRD-33.5	Auburn Narrows Park 47.30413 -122.18219	Collection	Boom 1200ft	Yes	Remote Rail crossing to access site. WDFW Soos Creek Boat Launch 0.3 mi upstream. Could hand-launch at bank in low water.	Downstream Resources, Habitat Restoration Site/Project, Waterfowl Concentrations, Wetlands	Alert BNSF that staff and equipment will be crossing at trail entrance. Watch for trains when entering/leaving site. Bank may disappear in high water. Be aware of fishermen on banks and homeless camping in park.	51	111
GRD-34.4	Mosby Farms 47.29368 -122.16772	Collection	Boom 1200ft	Yes	Onsite Small dirt/grass area at end of dirt road. WDFW fish counting station/boat stored onsite.	Downstream Resources, Salmon Habitat, Waterfowl Concentrations, Wetlands	Road owned by Mosby Farm but WDFW keeps seasonal screw trap on site. Hand-launch from bank. Large sandbar across on river right often has central channel. Adjust boom and anchors as needed.	52	113

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-41.4	Whitney Bridge High Water 47.28233 -122.05498	Collection	Boom 500ft	Yes	Onsite Stage in parking lot on NW side of road; use boat launch across street	Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Salmon Habitat, Wetlands	Collection is only feasible if water is above average. Large cobbles bankside in low water. Pilings on river left may be hidden in high water.	53	115
GRD-41.5	Whitney Bridge 47.28201 -122.05377	Collection	Boom 500ft	Yes	Onsite Parking area on NW side of road has portable restroom and parking. Keta Creek Hatchery nearby for other facilities.	Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Salmon Habitat, Wetlands	In low water, motorized boat may not be an option. Large cobbles bankside in low water. Pilings on river left may be hidden in high water.	53	117
GRD-44.3	Flaming Geyser State Park 47.27367 -122.02347	Collection	Boom 2100ft	Yes	Onsite Flush restrooms, covered pavilions, water and power. Coordinate with rangers.	Downstream Resources, Salmon Habitat, Sensitive Resources, State Park	Can hand launch in 5 spots. Can load boom on boat in high water but use winch and line to deploy boom in summer. Popular with kayakers, rafters and floaters. Boaters in Gorge may need to exit here.	53	119
GRD-57.0	Kanaskat- Palmer State Park Group Camp 47.31844 -121.89650	Collection	Boom 600ft	Yes	Onsite Group camp has parking, flush toilets, water. Hand-carry or ATV 250 ft trail to site with logs/stairs.	Downstream Resources, Fish Hatchery, Harlequin Ducks, Riparian Area, Salmon Habitat, State Park, Water Intakes, Wetlands	Fast shallow water and rapids. Hand-launch kayak at site. 250 ft unpaved trail from staging area.	54	121

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
GRD-59.1	Sandy Beach 47.31337 -121.87008	Collection	Boom 200ft	Yes	Onsite Area is only used by recreation and Tacoma Power. Stage at Powerline Rd or parking at Tacoma entrance.	Downstream Resources, Fish Hatchery, Salmon Habitat, Waterfowl, Wetlands	Hand-launch from bank. Short footpath from road. Potential emergency access to north bank from private property at end of SE Hudson Rd.	54	123
GRD-61.0	Tacoma Water Diversion Dam 47.30049 -121.84010	Collection	Boom 450ft, Sorbent 450ft	No	Onsite Roadside pull-off at bridge and paved parking at collection site.	Downstream Resources, Economic Resource, Habitat Restoration Site/Project, Public Health and Safety, Salmon Habitat, Water Intakes	Calm pool with swirling eddies above Tacoma Water diversion dam. Use caution near dam spillway.	54	125
MILL-1.6	Mill Creek Carpinito Brothers Corn Maze 47.35564 -122.24820	Collection, Underflow Dam	Boom 100ft, Sorbent 200ft	No	Onsite Large parking area immediately adjacent. Some facilities across street at offices.	Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat	Large parking lot leads to footbridge. Vegetation cleared seasonally.	51	127
MILL-3.4	Mill Creek by Emerald Downs 47.33312 -122.24103	Underflow Dam	Boom 100ft, Sorbent 100ft	No	Onsite Best access from M St NW off 15th. 29th St is closed, use road for staging.	Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat	Empty lot/abandoned farm. Low flowing drainage under closed road. Wetland-like mud and vegetation off road.	51	129

63 CHAPTER 4

Strategy Name	Location	Strategy Type	Boom Length	Boat Req?	Staging Area	Resources At Risk	Comments	Sector Map (Page#)	Strategy Details (Page#)
NWKC-6.4	Newaukum Creek at 424th 47.22113 -122.03235	Collection	Boom 100ft	No	Onsite Small space to pull off road; use nearby driveways/fields.	Downstream Resources, Habitat Restoration Site/Project, Salmonids, Waterfowl, Wetlands	Upstream field has irrigation ditches and deep mud; downstream is front yard but easy slope past vegetation.	53	131
NWKC-7.9	Newaukum Creek at 248th 47.21386 -122.01092	Sorbent, Underflow Dam	Sorbent 100ft	No	Onsite Driveways/yards next to site. Partial shoulder. Quiet road.	City Park, Downstream Resources, Habitat Restoration Site/Project, Salmonids, Waterfowl, Wetlands	Well maintained yards with low banks on roadside	53	133
SPBC-1.1	Springbrook Creek at SW 7th St 47.47237 -122.23640	Collection	Boom 200ft	Yes	Onsite Alert King County South Plant Main Control Center before arrival, use parking lot to stage.	Bald Eagle Nesting, Estuary Resources, Great Blue Heron Rookeries, Pump Station, Salmon Habitat, Wetland Habitat	Alert King County South Plant Main Control Center before arrival to prevent security alert. Hand- launch small boat/raft from trail.	50	135
SPBC-1.4	Springbrook Creek at Grady Way 47.46798 -122.23425	Collection	Boom 100ft, Sorbent 100ft	No	Onsite Fire access road is not used. Can stage on road or in parking area or cut bollards to trail.	Freshwater	Notify King County South Main Control Center to avoid security alert.	50	137

64 CHAPTER 4

4.5.3 Notification Strategy Matrices

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Sector Map (Page #)	Strategy Details (Page#)
BLKR-0.3-N	Black River Pump Station 47.47499 -122.24520	Notification	Habitat Restoration Site/Project, Heron Rookeries, Pump	Call King County South Plant Control Center at (206) 263-1760. Inform them of the situation and request that flow at the Black River Pump Station be adjusted or stopped.	Black River and Springbrook Creek	50	141
BS00-1.0-N	WDFW Soos Creek Hatchery 47.30947 -122.16799	Notification	Fish Hatchery, Resident Fish, Salmon - Chinook, Salmon - Coho, Steelhead	Call Soos Creek Hatchery at (253) 931-3950 and explain the situation regarding the spill.	Prevent fish from being released during a spill or protect salmon at hatchery	52	143
CRSP-1.2-N	Keta Creek Hatchery 47.29061 -122.06089	Notification	Fish Hatchery, Salmon (Coho, Chinook and Chum), Tribal Lands/Resources, Water Intakes	Call the Fisheries department at (206) 931-0652 and inform them of the situation. Ask them to notify Keta Creek and Palmer Ponds.	Notify Palmer Ponds to shut intakes. Delay salmon release from Palmer and Keta Creek.	53	145
GRD-37.9-N	Muckleshoot Tribe Fishermen/Boaters 47.27491 -122.11585	Notification	Public Health and Safety, Tribal Lands/Resources	Call Muckleshoot Fisheries at (206) 931-0652 and explain the situation regarding the spill.	Alert fisheries to get biologists off river. Also alert Police to activate phone tree and get tribal fishermen off river.	52	147
GRD-42.0-N	King County Parks 47.28083 -122.04379	Notification	Health and Safety	Call King County Roads Emergency Line at (206) 296-8100 and request a callback from the Parks Duty Officer.	Notify King County Parks to close parks along river and evacuate visitors from the water and banks	53	149

Strategy Name	Location	Strategy Type	Resources at Risk	Implementation	Comments	Мар	Strategy Details (Page#)
GRD-59.8-N		Notification	Fish Ladder(s), Public Health and Safety, Water Intakes	Call (253) 502-8346 for Tacoma Water 24hr Emergency Line. Explain situation regarding the spill and advise they protect their intakes.	Protect City of Tacoma water supply	54	151
GRD-64.6-N	Howard Hanson Dam 47.27761 -121.78755	Notification	Management Area	Call the Reservoir Control Center at (206) 764-6702 and inform them of the spill and response taking place.	Notify dam of spill and potentially reduce flow	54	153

4.5.4 Staging Area Matrices

Strategy Name	Location	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
SA-GRD-33.8	WDFW Soos Creek Boat Launch	47.30103 -122.17510	12334 SE Green Valley Rd Auburn, WA 98092	WDFW Soos Creek Hatchery (253) 931-3950 Washington Department of Fish and Wildlife Region 4 (425) 775-1311	GRD-33.5	Small gravel lot, no facilities	51	157
SA-GRD-41.5	Whitney Bridge Boat Launch	47.283 -122.05464	21907 SE Green Valley Rd Auburn, WA 98092	King County Parks and Recreation 201 S. Jackson Street, # 700 Seattle, WA 98104 (206) 296-8100	GRD-41.4, GRD-41.5	Paved lot, minimal facilities.	52	159

OCTOBER 2015

4.5.5 Boat Launch Matrices

Strategy Name	Name	Position	Nearest Address	Contact	Strategies Served	Comments	Sector Map (Page #)	Strategy Details (Page#)
BL-GRD-18-7	Van Doren's Landing Park	47.40528 -122.27377	21901 Russell Rd Kent, WA 98032	City of Kent Parks, Recreation and Community Services (253) 856-5000	GRD-21.7, GRD-15.0, GRD-17.1, GRD-19.4, GRD-20.5	Hand launch only. Can drive partway down ramp but last 20' have narrow sides and mud bottom.	50	163
BL-GRD-26.8	King County Emergency Rescue boat launch	47.36364 -122.22034	26427 Green River Rd Kent, WA 98030	King County Parks and Recreation 201 S. Jackson Street, # 700 Seattle, WA 98104 (206) 296-8100	GRD-23.9	Natural gravel and mud launch used for emergency rescues.	51	165
BL-GRD-33.8	WDFW Soos Creek Boat Launch	47.30103 -122.17510	12334 SE Green Valley Rd Auburn, WA 98092	WDFW Soos Creek Hatchery (253) 931-3950 Washington Department of Fish and Wildlife Region 4 (425) 775-1311	GRD-33.5	Hand-launch only, sandbar mid-channel, upstream of log jam	52	167
BL-GRD-41.5	Whitney Bridge Boat Launch	47.28300 -122.05464	21907 SE Green Valley Rd Auburn, WA 98092	King County Parks and Recreation 201 S. Jackson Street, # 700 Seattle, WA 98104 (206) 296-8100	GRD-41.4, GRD-41.5	Gravel launch. Very shallow water in summer. Alternate hand launch on other side of bridge.	53	169

APPENDIX 4A

Response Strategy 2-Pagers

RESPONSE STRATEGIES - LIST

BLAKR-0.4	BS00-1.3	BS00-5.3	GRD-6.5	GRD-6.9
GRD-8.0	GRD-8.5	GRD-9.6	GRD-10.4	GRD-13.2
GRD-15.0	GRD-17.1	GRD-19.4	GRD-20.5	GRD-21.7
GRD-23.9	GRD-29.8	GRD-30.5	GRD-30.6	GRD-32.2
GRD-33.5	GRD-34.4	GRD-41.4	GRD-41.5	GRD-44.3
GRD-57.0	GRD-59.1	GRD-61.0	MILL-1.6	MILL-3.4
NWKC-6.4	NWKC-7.9	SPBC-1.1	SPBC-1.4	

GREEN RIVER/DUWAMISH GRP OCTOBER 2015

Black River Pump Station

BLAKR-0.4

Position - Location: 47° 28.526', -122° 14.711' 47° 28' 31.6", -122° 14' 42.7"	47.47543, -122.24518 Rento	n
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Strategy Objective: Collection, Exclusion: Reduce impact to pump station and collect oil from wetland

Implementation:

Anchor 300 ft length of line near A (47.4757, -122.245), west of debris boom. Walk line across pump station to south bank, toss over fence and anchor near B (47.475, -122.2446), also west of debris boom. Use power winch to deploy 300 ft section of B2 boom. Line boom with sorbent. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

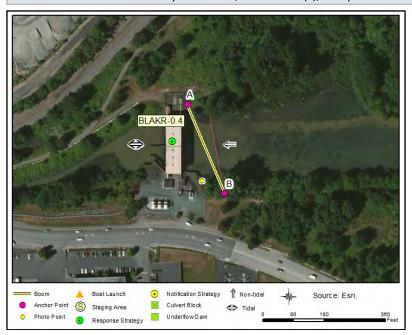
Staging Area: Onsite: Use parking lot on south bank off Monster Rd and private access road to north bank.

Steep bank, vegetation on south bank

Field Notes: Sensitive wetland and nesting area. Consult with WDFW when possible.

Watercourse: Freshwater Wetland - Can control flow using pump station. Coordinate with King County Wastewater Control Center.

Resources at Risk: Estuary Resources, Fish Ladder(s), Pump Station



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
300	Feet	Boom - B2 (18" to 42")
1	Each	Bridle(s) - Hand (appropriately sized for boom)
300	Feet	Line - 3/8" poly line
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

1	Laborer
1	Supervisor

Black River Pump Station

BLAKR-0.4



BLAKR-0.4 Photo: King County Black River Pump Station, from south bank looking north, upstream of pump station. Black River Riparian forest to the right on the photo.

Site Contact

WDFW Region 4

Primary Contact: 425-775-1311

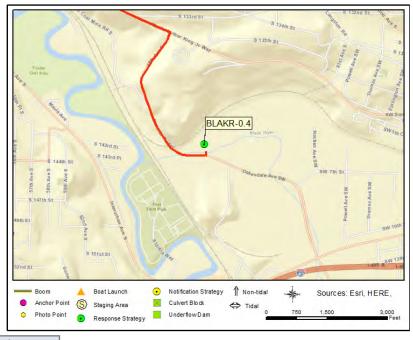
King County Wastewater South Plant Main Control Center

Land/Property Owner : Emergency contact

206-263-1760

Nearest Address

550 Monster Rd SW Renton, WA 98057



Driving Directions

- 1. Start at I 5 Seattle
- 2. Go southeast on I-5 toward exit 157
- 3. At exit 157 take ramp on the right to WA-900 E/M L King Way (0.2 miles)
- 4. Continue on WA-900 (Martin Luther King Jr Way S) (1.81 miles)
- 5. Turn right on 68th Ave S (0.39 miles)
- 6. Continue on Monster Rd SW (0.2 miles)
- 7. Finish at 550 Monster Rd SW, 98057, on the left

Big Soos Creek BSOO-1.3

Strategy Objective: Collection: Collect oil moving downstream on Big Soos Creek

Implementation:

Anchor 100-ft section of boom near A (47.3134, -122.1639) and extend across upstream edge of bridge and anchor near B (47.3135, -122.1641). Repeat with second 100-ft section of boom between C and D, across downstream edge of bridge. Line boom with sorbent. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

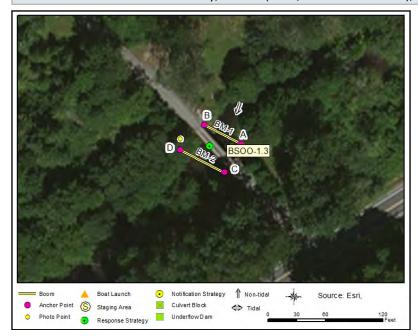
Staging Area: Onsite: Facilities & parking just downriver at Soos Creek Hatchery.	Small driveway area at site.
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Site Safety: Road traffic. Slips, trips and falls. Bridge not rated for heavy loads. Vegetation on bank.

Field Notes: Single-lane driveway bridge crossing the creek. Low banks.

Watercourse: Creek - Creek height low of 2.6' in summer to 4' in Jan. Flows between 33 and 256 cfs.

Resources at Risk: Fish Hatchery, Salmon (Coho, Chinook and Chum), Water Intakes



Recommended Equipment 4 Each Anchoring System(s)- Shoreside 200 Feet Boom - B3 (River Boom) or equivalent 200 Feet Boom - Sorbent 1 Each Vac Truck or Skimmer and Storage

Recommended Personnel

1 Laborer1 Supervisor

Big Soos Creek BSOO-1.3



 ${\sf BSOO}\text{-}1.3$ Photo: On Big Soos Creek right, looking east upstream at driveway bridge.

Site Contact

No Information

Private Owner:

WDFW Soos Creek Hatchery

Secondary Contact :

253-931-3950

Nearest Address

13404 SE Auburn-Black Diamond Rd Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle, head S towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.91 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Continue on M St NE (0.69 miles)
- 9. Turn left on 3rd St SE (0.25 miles)
- 10. Turn right on R St SE (0.06 miles)
- 11. Bear left on SE Auburn Black Diamond Rd (1.5 miles)
- 12. At fork keep left on SE Auburn Black Diamond Rd (1.06 miles)
- 13. Shortly after WDFW Soos Creek Hatchery, driveway for 13404 SE Auburn-Black Diamond Rd is on the left.

Big Soos Creek at Kent Black Diamond Rd

BSOO-5.3

Position - Location: 47° 20.619', -122° 8.064' 47° 20' 37.1", -122° 8' 3.8" 47.	7.34364, -122.13440 Kent
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Strategy Objective: Collection: Collect oil moving downstream on Big Soos Creek

Implementation: Ancho

Anchor 100-ft section of boom on south/left bank near A (47.3436, -122.1343). Throw heaving line across stream/bridge (CAUTION) and extend boom NW across creek to anchor near B (47.3437, -122.1345). In low water, use sorbent instead of B3 boom. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore.

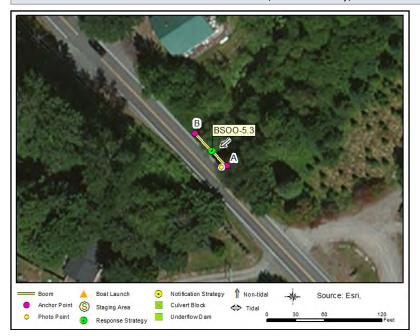
Staging Area:	Onsite:	Gravel turnaround 100ft SE of site.
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Site Safety: Road traffic; water hazard; overgrown vegetation; slips, trips, falls

Fast road. 100' vegetated path from driveway to bank. Some access from property N upstream.

Watercourse: Creek - Big Soos Creek - USGS 12112600

Resources at Risk: Downstream Resources, Fish Hatchery, Habitat Restoration Site/Project, Salmonids, Sensitive Resources Nearby, Wetlands



Recommended Equipment

2	Kit	Anchoring System(s)- Shoreside
100	Feet	Boom - B3 (River Boom) or equivalent
100	Feet	Boom - Sorbent
1	Each	Heaving Line(s)
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

2 Laborer
1 Supervisor

Big Soos Creek at Kent Black Diamond Rd

BSOO-5.3



BSOO-5.3 Photo: Looking NW from Big Soos Creek left on upstream side of Kent-Black Diamond Rd SE. Taken early May, 88 cfs at Big Soos Creek gage.

Site Contact

No Information

Private Owner:

Nearest Address

28852 Kent Black Diamond Rd SE Kent, WA 98042

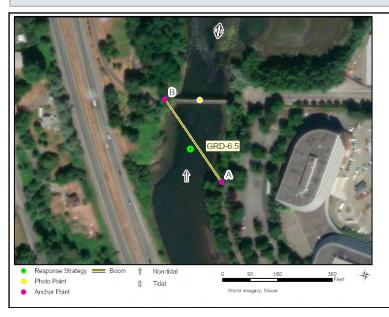


Driving Directions

- 1. From I-5 in Seattle, head south to exit 154A.
- 2. At exit 154A take ramp on the left and go on I-405 N toward Renton (1.95 miles)
- 3. At exit 2 take ramp on the right to WA-167 N toward Renton/Auburn (0.23 miles)
- 4. Take ramp to WA-167 S toward Kent/Auburn (0.34 miles)
- 5. Go on WA-167 (Valley Fwy) (4.4 miles)
- 6. Take ramp on the right to 84th Ave S toward N Central Ave (0.25 miles)
- 7. Turn left on 84th Ave S (E Valley Hwy) (0.14 miles)
- 8. Continue on Central Ave N (E Valley Hwy) (1.01 miles)
- 9. Turn left on WA-516 (E Smith St) (4.93 miles)
- 10. Turn right on 152nd Ave SE (0.76 miles)
- 11. Continue on Kent Black Diamond Rd SE (0.32 miles)
- 12. Finish at 28852 Kent Black Diamond Rd SE, 98042, on the left (gravel turnaround).

Cecil B. Moses Park	GRD-6.5
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Position - Location:	47° 30.149', -122° 17.839'	47° 30' 8.9", -122° 17' 50.3"	47.50248, -122.29731	Tukwila
Strategy Objective:	Collection, Deflection: Deflect of	oil away from sensitive resources located	river right and center. Collect if possible	le.
Implementation:	parking area, cross Green River Tr vegetation on right. Carry line acro	ea Committee recommends that this respo ail and set anchor post near A (47.5022, -: oss bridge and tie off on river left, near B (h posts. If oil collects, attempt removal wi	122.2969). Tie off line and walk to brid (47.5029, -122.2887). Use come-along	ge, keeping tall g winch to haul
Staging Area:	Onsite: Parking area in Cecil B Mo	oses Park and dead end of S 112th St		
Site Safety:	Slips, trips falls. Blackberry and other thick vegetation on banks.			
Field Notes:	Use caution in park areas at night/	/weekend		
Watercourse:	River - With Tidal Influence - Low	flow July - Sept. Tidal influence.		
Resources at Risk:	Estuary Resources, Habitat Resto	ration Site, Sensitive Resources		



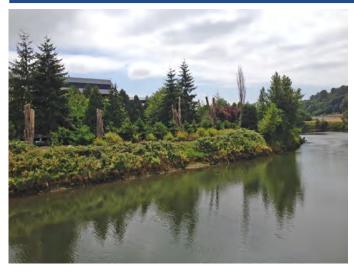
Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B3 (River Boom) or equivalent
400	Feet	Line - 3/8" poly line
1	Each	Pump(s)
1	Each	Vac Truck or Skimmer and Storage (if collection)
1	Each	Winch - Power Winch

Recommended Personnel

1	Laborer	
1	Supervisor	

Cecil B. Moses Park GRD-6.5



GRD-6.5 Photo: View from pedestrian bridge looking SE at Green River Trail and point A.

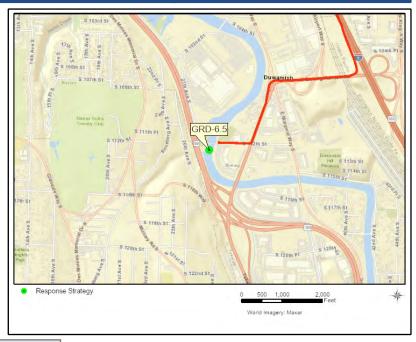
Site Contact

King County Parks and Recreation

Land/Property Owner: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

2917 S 112th St Tukwila, WA 98168



Driving Directions

- 1. From I-5 in Seattle, head south to exit 158.
- 2. At exit 158 bear right onto ramp to Boeing Access Rd toward E Marginal Way (0.21 miles)
- 3. At fork keep right (0.06 miles)
- 4. Continue on S Boeing Access Rd (0.39 miles)
- 5. Bear left on Pacific Hwy S (Tukwila International Blvd) (0.28 miles)
- 6. Turn right on S 112th St (0.11 miles)
- 7. Use dead-end area of 112th or Boeing parking for some equipment.

Directions to Cecil B. Moses Park (larger staging and vac truck):

- 1. From S Boeing Access Rd, continue straight (0.5 mi)
- 2. Take the Washington 99 ramp (0.2 mi)
- 3. Merge onto WA-99 N (0.4 mi)
- 4. Take the exit toward W Marginal Pl South (0.1 mi)
- 5. Turn right onto 27th Ave S.
- 6. Cecil Moses Memorial Park is 0.4 mi down at the end of the road.

Chinook Wind GRD-6.8R

Position - Location: 47° 30.029', -122° 17.571' 47° 30' 1.7", -122° 17' 34.3" 47.50048, -122.29285 Tukwila

Strategy Objective: Exclusion: Keep oil out of restoration site.

Implementation: Using workboat, deploy 600ft boom on upriver side of entrance at anchor point A. Then extend boom west and secure end near anchor point C. Near boom midpoint, use workboat to pull boom south, creating a chevron, and anchor near anchor point B. Use

anchoring systems as needed to keep boom secure. Use anchor posts, existing structures, or trees to secure boom to riverbank.

Staging Area: Onsite: Stage equipment onsite.

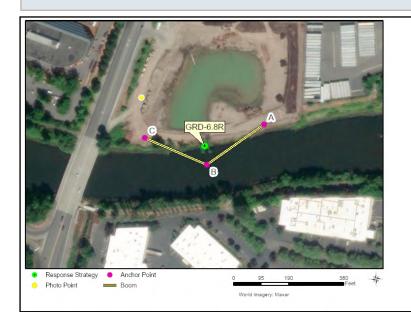
Site Safety: Slips, Trips, Falls; Uneven Surfaces; Water Hazard

Field Notes: Restoration project was completed in 2023. Call King County before deployment (206-477-4800). 600ft boom is recommended in order

to protect the site at high tide.

Watercourse: River - With Tidal Influence - Green River

Resources at Risk: Estuary Resources, Habitat Restoration Site, Resident Fish, Salmonids



Recommended Equipment

5	Each	Anchoring System(s) - (anchor, lines, floats)
2	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B2 (18" to 42")
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
3	Laborer
1	Supervisor

Chinook Wind GRD-6.8R



GRD-6.8R Photo: From west end of project site, looking southeast towards entrance and Green River (downriver is to the right). Photo was taken in September.

Site Contact

King County

Municipality (County/City) : Water and Land Resources Division

Seattle, WA 98104 206-477-4800

Nearest Address

11210 Tukwila International Blvd Tukwila, WA 98168



Driving Directions

- 1. Head south on I-5
- 2. Take exit 158 on the right to Boeing Access Rd toward E Marginal Way
- 3. Turn right on S Boeing Access Rd
- 4. At the traffic light, turn left on Tukwila International Blvd
- 5. Location is on the left just before crossing the bridge over the river.

Duwamish Garden GRD-6.9

Position - Location: 47° 30.033', -122° 17.340' 47° 30' 2.0", -122° 17' 20.4" 47.50056, -122.28900 Tukwila

Strategy Objective: Collection, Deflection: Deflect oil away from Duwamish Garden restoration site and collect oil on river left.

Implementation:

Set anchor posts as far down bank as possible near A (47.5010, -122.2885) between Link Light Rail and E Marginal Way S Bridge. Tie line to anchor and carry south across bridge until over Green River Trail. Drop line to trail and carry south to B (47.5002, -122.2898) and attach to shoreside anchor. Use power winch to deploy boom. If boat is available, hand-launch from Green River Trail at B and set additional anchor on shoreside near C (47.5009, -122.2882) and anchor at D (47.5002, -122.2893). Adjust angles as needed to account for flow. Be extremely cautious around Light Rail electrical lines.

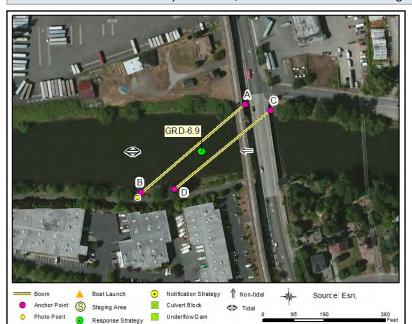
Staging Area: Onsite: Parking area next to Green River Trail. Can hand-launch boat from trail edge at Point A.

Site Safety: Car traffic. Light rail traffic and electrical lines. Slips, trips falls. Vegetation and blackberry brambles on bank.

Field Notes: Contact King County DPNR to see if bollards can be removed to get equipment on trail

Watercourse: River - With Tidal Influence - Low flow July - Sept

Resources at Risk: Estuary Resources, Habitat Restoration and Mitigation Site, Sensitive Resources Nearby



Recommended Equipment

4	Each	Anchoring System(s)- Shoreside
900	Feet	Boom - B3 (River Boom) or equivalent
1000	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

- 1 Boat Operator/Supervisor
- 2 Laborer

Duwamish Garden GRD-6.9



GRD-6.9 Photo: From Green River Trail on river left looking NE at Duwamish Gardens site and light rail bridge.

Site Contact

King County Parks and Recreation

Land/Property Contact: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

3460 S 116th St Tukwila, WA 98168



Driving Directions

- 1. From I-5 in Seattle, head south to exit 158.
- 2. At exit 158 bear right onto ramp to Boeing Access Rd toward E Marginal Way (0.21 miles)
- 3. At fork keep right (0.06 miles)
- 4. Continue on S Boeing Access Rd (0.36 miles)
- 5. Turn left on E Marginal Way S (0.57 miles)
- 6. Turn right on S 116th St (0.08 miles)
- 7. Take an immediate right into the parking area. Wooden bollards to the Green River Trail are at the end of the lane.

Allentown Bridge GRD-8.0

Position - Location: 47° 29.407', -122° 16.804' 47° 29' 24.4", -122° 16' 48.2" 47.49011, -122.28006 Tukwila

Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation: From Tukwila Community Center Trail (47.4905,-122.2798) climb down bank and set anchor post or tie to tree as close to A (47.4902, -

122.2794) as possible. Walk line south across bridge and drop line from bridge to Green River Trail. Secure to shore near B (47.4902, - 122.2794). Use power winch to deploy boom. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts

trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

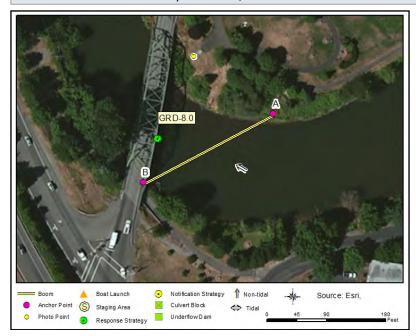
Staging Area: Onsite: Stage at Tukwila Community Center. Can also cut bollards to Green River Trail to drop equipment.

Site Safety: Slips, trips falls. Vegetation and blackberry brambles on bank. Car traffic.

Field Notes: Bank more accessible in low water. Be aware of sloughing.

Watercourse: River - With Tidal Influence - Low flow July - Sept

Resources at Risk: Estuary Resources, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
300	Feet	Boom - B3 (River Boom) or equivalent
600	Feet	Line - 3/8" poly line
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Winch - Power Winch

Recommended Personnel

1	Laborer
1	Supervisor

Allentown Bridge





GRD-8.0 Photo: From edge of Allentown Bridge on river right at Tukwila Community Center looking SW at Green River Trail and east bank access.

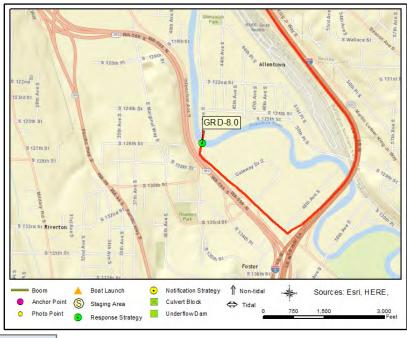
Site Contact

City of Tukwila Parks and Recreation Department

Land/Property Owner: 12424 42nd Avenue South Tukwila, WA 98168 206 768-2822

Nearest Address

12424 42nd Avenue South Tukwila, WA 98168



Driving Directions

- 1. From I-5 in Seattle, go south to exit 156.
- 2. Take ramp on the right to Interurban Ave toward Tukwila (0.21 miles)
- 3. Turn right on Interurban Ave S (0.27 miles)
- 4. At fork keep right on Interurban Ave S (0.29 miles)
- 5. Turn right on 42nd Ave S (0.11 miles)
- 6. Finish at 12424 42nd Avenue South, 98168, on the right

Codiga Park GRD-8.5

Position - Location: 47° 29.427', -122° 16.247' 47° 29' 25.6", -122° 16' 14.8" 47.49045, -122.27079 Tukwila

Strategy Objective: Exclusion: Keep oil out of habitat restoration site.

Implementation: Access trail at NE edge of parking area (47.49,-122.2698) to deliver boat and equipment near A (47.4905,-122.2708). Hand-launch

kayak/raft, or lay plywood walkway or use waders to secure 100ft section of boom near A. Extend boom ~70ft south and secure near B

(47.4904,-122.2708). Line with sorbent boom to protect side channel.

Staging Area: Onsite: Facilities and parking. Move small log to drive hand-launch boat down trail to water's edge. Very shallow.

Site Safety: Deep mud. Slips, trips falls. Vegetation and blackberry brambles on bank.

Field Notes: Some tidal influence (~2 ft). Use waders/plywood in low water. Trail can get muddy.

Watercourse: River - With Tidal Influence - Low flow July - Sept.

Resources at Risk: City Park, Habitat Restoration and Mitigation Site, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B3 (River Boom) or equivalent
100	Feet	Boom - Sorbent
8	Each	Plywood sheets (4ft x 8ft)
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1 Boat Operator	
1 Supervisor	

Codiga Park GRD-8.5



GRD-8.5 Photo: Restoration site at Codiga Park on river right, from trail at waters edge, looking at side channel entrance. Near low tide, 3000 cfs.

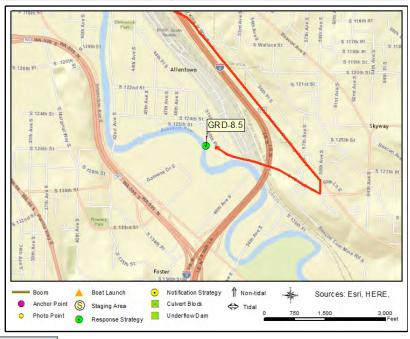
Site Contact

City of Tukwila Parks and Recreation Department

Land/Property Owner: 12424 42nd Avenue South Tukwila, WA 98168 206 768-2822

Nearest Address

12595 50th PI S Tukwila, WA 98178



Driving Directions

- 1. Start at Location 1
- 2. Go southeast on I-5 toward 161 (4.05 miles)
- 3. At exit 157 take ramp on the right to WA-900 E/M L King Way (0.2 miles)
- 4. Continue on WA-900 (Martin Luther King Jr Way S) (1.19 miles)
- 5. Turn right on 60th Ave S (0.06 miles)
- 6. Turn right on S 129th St (0.47 miles)
- 7. Continue on 50th PIS (0.02 miles)
- 8. Finish at 12595 50th PI S, 98178, on the left

GRD-9.6

57th Ave S Mini Park

Position - Location: 47° 29.044′, -122° 15.835′ 47° 29′ 2.7″, -122° 15′ 50.1″ 47.48407, -122.26391 Tukwila

Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish

Implementation:

Using hand-launch workboat, secure 400 ft section of boom near A (47.4841,-122.2643). Extend boom ~325 ft to the east and secure to shore near B (47.4844, -122.2629). Set additional anchor system next to A and extend second 300 ft section of boom SW ~250 ft and secure to shore near D. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Can drive trailered hand-launch boat to water's edge through grass. 4' wide gap between log and blackberry.

Site Safety: Slips, trips falls. Vegetation and blackberry brambles on bank.

Field Notes: River left has small park with easy grassy slope and mud banks. River right is Foster Golf Links. Vac truck access on both sides, bring hose

extension when muddy.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Estuary Resources, Salmon Habitat



Recommended Equipment

4	Each	Anchoring System(s)- Shoreside
700	Feet	Boom - B3 (River Boom) or equivalent
2	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator	
2	Laborer	
1	Supervisor	

57th Ave S Mini Park

GRD-9.6



GRD-9.6 Photo: River right at 57th Ave S Mini Park, looking SE across Green River at Foster Golf Links. Photo taken 12/10/14 Auburn Gage 1700cfs

Site Contact

City of Tukwila Parks and Recreation Department

Land/Property Owner: 12424 42nd Avenue South Tukwila, WA 98168 206 768-2822

Nearest Address

13302 56th Avenue South Tukwila, WA 98178



Driving Directions

- 1. From I-5 in Seattle head south to exit 156.
- 2. At exit 156 take ramp on the right to Interurban Ave toward Tukwila (0.21 miles)
- 3. Make sharp left on Interurban Ave S (0.22 miles)
- 4. Turn left on 56th Ave S (0.22 miles)
- 5. Turn right on S 133rd St then drive to dead-end. Park is straight ahead.

Foster Golf Links Bridge

GRD-10.4

Position - Location: 47° 28.723′, -122° 15.532′	47° 28' 43.4", -122° 15' 31.9"	47.47871, -122.25887	Tukwila
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish

Implementation: Set anchor near A (47.4789, -122.259) and tie line. Walk line acros

Set anchor near A (47.4789, -122.259) and tie line. Walk line across bridge and down opposite bank as far upstream as possible near B (47.4784, -122.2589). Use power winch to deploy 200ft section of boom. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

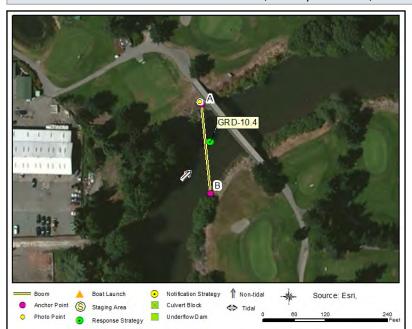
Staging Area: Onsite: Parking and facilities at golf course. Use paved trails to move equipment/vac trucks.

Site Safety: Slips, trips falls. Vegetation and blackberry brambles on bank.

Field Notes: Popular public golf course with busy golf cart trails.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Estuary Resources, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B3 (River Boom) or equivalent
400	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch

Recommended Personnel

1	Laborer
1	Supervisor

Foster Golf Links Bridge

GRD-10.4



GRD-10.4 Photo: North bank next to golf cart bridge on river left, looking SE across Green River at southern section of Foster Golf Links.

Site Contact

City of Tukwila Parks and Recreation Department

Land/Property Owner: 12424 42nd Avenue South Tukwila, WA 98168

206 768-2822

Nearest Address

14000 Interurban Ave South Tukwila, WA 98168



Driving Directions

- 1. From I-5 in Seattle head south to exit 156.
- 2. At exit 156 take ramp on the right to Interurban Ave toward Tukwila (0.21 miles)
- 3. Make sharp left on Interurban Ave S (0.64 miles)
- 4. Turn left on S 140th St.

Strander Bridge at Bicentennial Park

GRD-13.2

Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation: Using hand-launch workboat, secure end of line near A (47.4562, -122.2461). Extend line east ~150 ft to bank and secure near B (47.4563, -122.2455). Deploy 200 ft section of boom using line and power winch. Use shoreside anchoring posts, trees, or existing

structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Trail access from Bicentennial Park. Facilities and small parking area.

Site Safety: Low bridge: use caution or avoid in high water. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: High waters can reach bridge bottom. Bridge height 7' from trail.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
200	Feet	Boom - B3 (River Boom) or equivalent
300	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1 Boat Operator/Supervisor
1 Laborer

Strander Bridge at Bicentennial Park

GRD-13.2



GRD-13.2 Photo: From trail under Strander Blvd Bridge on river left, just upstream of Bicentennial Park.

Site Contact

City of Tukwila Parks and Recreation Department

Land/Property Owner :

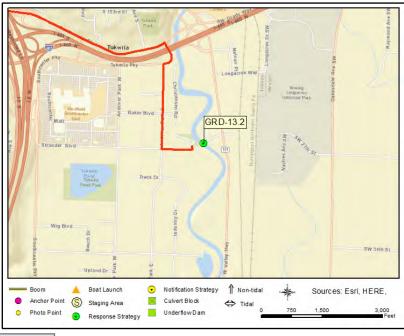
12424 42nd Avenue South

Tukwila, WA 98168

206 768-2822

Nearest Address

630 Strander Blvd Tukwila, WA 98188



Driving Directions

- 1. From I-5 in Seattle head south to exit 154B.
- 2. Bear right onto ramp to WA-518 toward Burien/Sea-Tac Airport/Southcenter Blvd. & Mall (0.09 miles)
- 3. Take ramp toward Southcenter Blvd & Mall (0.28 miles)
- 4. Turn left on Southcenter Blvd (S 154th St) (0.89 miles)
- 5. Turn right on 66th Ave S (0.1 miles)
- 6. Continue on Tukwila Pky (0.04 miles)
- 7. Turn left on Andover Park E (0.4 miles)
- 8. Turn left on Strander Blvd (0.16 miles)
- 9. Turn left just before the bridge, into Bicentennial Park.

GREEN RIVER/DUWAMISH GRP OCTOBER 2015

S 180th at Andover Park

GRD-15.0

Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Set shoreside anchor post close to water near A (47.441, -122.2529) and tie line. Using workboat, extend line south ~ 291 ft and anchor using shoreside post near B (47.4402, -122.2529). Deploy boom using power winch. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

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Staaina Area:	Onsite: Stage in parking lot. Hand-launch boat from Van Doren's Landing (3.7 mi upstream)
Jiuuiiiu Aicu.	Onsite. Stage in parking lot, name admensional nominal poreirs canding (5.7 mil abstream)

Site Safety: Train crossing nearby. Car traffic. Slips, trips falls. Vegetation and blackberry brambles on bank.

Field Notes: BNSF tracks between strategy and parking lot, use caution. Parking lot belongs to Continental Mills 800-426-0955, inform them of situation during work hours. Can also use alternate trail access 800 ft east on S 180th St for wider vehicles.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
300	Feet	Boom - B3 (River Boom) or equivalent
300	Feet	Line - 3/8" poly line
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
1	Laborer
1	Supervisor

S 180th at Andover Park

GRD-15.0



GRD-15.0 Photo: View from setback levee access road, looking upstream on river left.

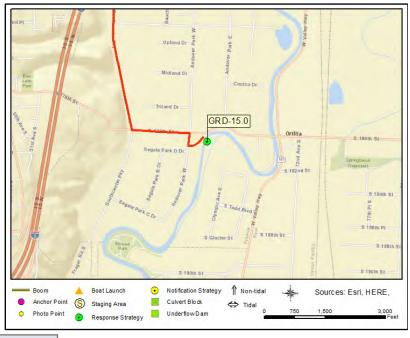
Site Contact

King County Parks and Recreation

Land/Property Contact: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

18080 Andover Park W Tukwila, WA 98188



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 154B.
- 2. At exit 154B bear right onto ramp to WA-518 toward Burien/Sea-Tac Airport/Southcenter Blvd. & Mall (0.09 miles)
- 3. Take ramp toward Southcenter Blvd & Mall (0.28 miles)
- 4. Turn left on Southcenter Blvd (S 154th St) (0.48 miles)
- 5. Turn right on 61st Ave S (0.11 miles)
- 6. Turn right on Southcenter Pky (1.57 miles)
- 7. Turn left on S 180th St (0.28 miles)
- 8. Turn right on Andover Park W (0.07 miles)
- 9. Take the next left into the parking lot (before the railroad tracks). Follow the tracks to the NE corner. The access to the levee/Green River Trail is along \$180th.

Three Friends Fishing Hole

GRD-17.1

Position - Location: 47° 25.358′, -122° 15.907′	47° 25' 21.5", -122° 15' 54.4"	47.42264, -122.26512	Kent
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Secure 600 ft length of line near A (47.4227, -122.265). Using hand-launch workboat, extend line SSE ~290 ft and loop around a tree near B (47.4222, -122.2653). Use line and power winch to deploy 300 ft section of boom from A. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area:	Onsite: Public flush restrooms and parking on-site. Hand-launch ramp at Van Doren's Landing 1.6 mi upstream.
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Site Safety: Slippery mud buildup at rivers edge near 4' drop to water. Trips and falls. Vegetation and blackberry brambles on bank. In-water woody

Field Notes: Path is paved but narrow clearance, use ATV. Heavy vegetation on banks. Levee setback planned in area, adjust location as appropriate.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Habitat, Downstream Resources



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B3 (River Boom) or equivalent
300	Feet	Line - 3/8" poly line
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1 Boat Operator	
1 Laborer	
1 Supervisor	

Three Friends Fishing Hole

GRD-17.1



GRD-17.1 Photo: River right from end of paved path, looking SSE upstream at $_{\mbox{\scriptsize R}}$

Site Contact

City of Kent Parks, Recreation and Community Services

Land/Property Owner :

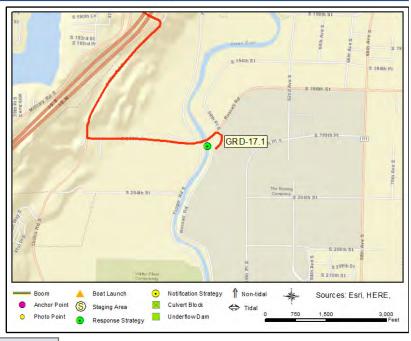
220 Fourth Ave S

Kent, WA 98032

253-856-5000

Nearest Address

19823 58th PI S Kent, WA 98032



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 152.
- 2. At exit 152 bear right onto ramp to S. 188th St. toward Orillia Rd. (0.16 miles)
- 3. At fork keep left toward Orillia Road (0.28 miles)
- 4. Make sharp left on S 188th St (0.15 miles)
- 5. Bear right on Orillia Rd S (0.66 miles)
- 6. Turn left on S 200th St (0.64 miles)
- 7. Turn right on 58th PI S (0.04 miles)
- 8. Parking lot is at end of road.

Russell Woods Park GRD-19.4

Position - Location: 47° 23.741′, -12	2° 16.415' 47° 23' 44.5", -122° 16' 2	47.39569, -122.27358	Kent
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Stage boom on Frager Rd on river left. Secure end of 400ft line near A (47.3951, -122.2744) as close to waterline as possible. Using line-throwing device or workboat, extend line east across to road on river right. Walk line NE ~385 ft to bridge and secure under bridge near B (47.3959, -122.2733). Use power winch to extend 400ft length of boom. Deploy second 500ft segment of boom between C and D in same manner, with ~30ft separation between boom segments. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Small parking lot 500 ft S of bridge. Hand-launch boat ramp at Van Doren's Landing 0.7 mi downstream.

Site Safety: Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Can use hand-launch boat instead of line gun if water is high enough, watch for woody debris in channel.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Salmonid Concentrations and Habitat, Waterfowl Concentrations, Wetland Habitat



Recommended Equipment

4	E I	A
4	Each	Anchoring System(s)- Shoreside
1000	Feet	Boom - B3 (River Boom) or equivalent
600	Feet	Line - 3/8" poly line
1	Each	Line throwing gun(s) or device(s)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

2 Laborer
1 Supervisor

Russell Woods Park





GRD-19.4 Photo: Russell Woods Park. From Green River trail at Russell Road on river right, looking SW upriver towards A and C, N of Veterans Drive Bridge and R

Site Contact

City of Kent Parks, Recreation and Community Services

Land/Property Owner:

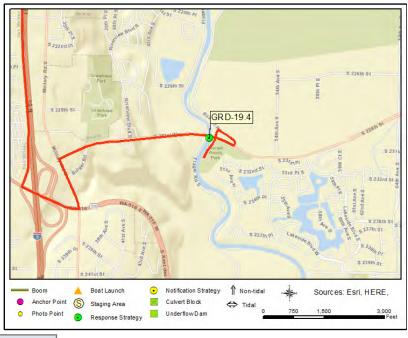
220 Fourth Ave S

Kent, WA 98032

253-856-5000

Nearest Address

22711 Russell Rd Kent, WA 98032



Driving Directions

To access Russell Woods Park (east bank):

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149, bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (0.29 miles)
- 4. Turn left on Military Rd S (0.25 miles)
- 5. Turn right on \$231st Way (0.85 miles)
- 6. Turn left on Russell Rd (0.25 miles)
- 7. Make an immediate left onto Park Access gravel road and drive under the bridge to the parking lot.

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To access Frager Rd (west bank):

- 1. Take I-5 S to exit 152.
- 2. Turn left at ramp then follow Orillia Rd S to the right. (0.6 mi)
- 3. Turn right ont Frager Rd S (2.1 mi)
- 4. Follow Frager Rd S for 1.5 miles to Veterans Drive Bridge.

Riverbend Golf Course GRD-20.5

Position - Location: 47° 23.134′, -122° 15.857′	47° 23' 8.0", -122° 15' 51.4"	47.38557, -122.26428	Kent
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Strategy Objective: Collection: Collect and recover product from Green River at northern end of Riverbend Golf Course

Implementation:

Using hand-launch workboat, secure end of 300ft length of line around tree on river left near A (47.3852, -122.2653). Then extend line NE ~290ft securing it to bank on river right near B (47.3855, -122.2641). Deploy boom using power winch on river right. Deploy second 300ft segment of boom between Points C & D in same manner as Points A & B, with ~30ft separation between boom segments. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area:	Onsite: Boat launch 1.8 mi downstream at Van Dorens. Stage boom onsite river right or use golf course.

Site Safety: Low overhead powerlines. Slips, trips, falls. Vegetation and blackberry brambles on bank. In-river woody debris.

Field Notes: Do not deploy in low water. Western bank thick vegetation/blackberries. In-river woody debris will prevent boat use in low water.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat, Waterfowl, Wetlands



Recommended Equipment

4	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B3 (River Boom) or equivalent
600	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
2	Laborer
1	Supervisor

Riverbend Golf Course

GRD-20.5



GRD-20.5 Photo: Riverbank on river right at southern end of levee access road. Only vegetation in photo needs to be cut for access.

Site Contact

City of Kent Parks, Recreation and Community Services

Land/Property Owner: 253-856-5000

King County Parks and Recreation

Secondary Contact:

206-296-8100

Nearest Address

5821 S 240th St Kent, WA 98032



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (1.62 miles)
- 4. Turn left on W Meeker St (0.56 miles)
- 5. Turn left on Russell Rd (0.39 miles)
- 6. Bear right (0.03 miles)
- 7. Bear right on W James St (0.09 miles)
- 8. Just before James bends right, turn left onto sidewalk access to Green River Trail. Cut bollards and follow south 200ft to end of old levee access road.

Mullen Slough Mouth

GRD-21.7

Position - Location: 47° 22.586', -122° 15.941' 47° 22' 35.2", -122° 15' 56.4" 47.37644, -122.26568
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Strategy Objective: Collection: Collect oil next to mouth of slough.

Implementation: Using workboat, deploy 300ft boom to right bank at anchor point A. Then extend boom southeast to anchor point B. Extend 50-100ft

boom east to keep oil out of slough. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use

anchoring systems to keep boom secure in water.

Staging Area: Onsite: Stage equipment onsite.

Site Safety: Road traffic; Slips, trips, falls; Vegetation on riverbank; Woody debris in river.

Field Notes: Slough sees high flow during fall and winter. Notify Kent Parks Department before deployment (253-856-5120).

Watercourse: River - Below a Dam - Green River - low flow from July to Sept

Resources at Risk: Backwater Habitat, Marsh



Recommended Equipment

1	Each	Anchoring System(s) - (anchor, lines, floats)
3	Each	Anchoring System(s)- Shoreside
300	Feet	Boom - B3 (River Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - of adequate size for type and amount of boom

Recommended Personnel

1	Boat Operator
2	Laborer
1	Supervisor

GRD-21.7 **Mullen Slough Mouth**



GRD-21.7 Photo: From left bank, looking northeast past Mullen Slough on the same side of the river.

Site Contact

City of Kent

Land/Property Contact: Parks, Recreation & Community Services

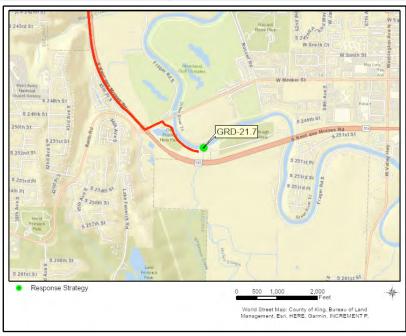
220 Fourth Ave S

Kent, WA 98032

253-856-5120

Nearest Address

24906 Frager Rd S Kent, WA 98032



Driving Directions

To Access Mullen Slough (South/Left Bank):

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149, bear right onto ramp to WA-516 toward Kent/Des Moines

1. Instead of turning right on Frager Rd, continue on W Meeker to entrance

- 3. Turn left on WA-516 (S Kent Des Moines Rd)
- 4. Turn left on W Meeker St
- 5. Turn right on Frager Rd S
- 6. Location is on the left

- To Access Riverbend Driving Range (North/Right Bank):
- 2. Drive south to Green River Trail
- 3. Turn right and follow trail west to location

Hwy 167 Bridge at Foster Park

GRD-23.9

Position - Location:	47° 22.197', -122° 14.644'	47° 22' 11.8", -122° 14' 38.6"	47.36995, -122.24406	Kent

Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using line-throwing device or EXTREME CAUTION on bridge shoulder, extend 350 ft line from north to south bank. Anchor as close to the water's edge as possible near A (47.3695, -122.2438). Extend line ~275 ft NW and secure to bridge near B (47.3702, -122.2444). Use power winch to extend 300 ft section of boom. Use 100 ft boom to form pocket between B and C (47-3701, -122.2442). Extend 300 ft of boom between D and E using same process as A & B. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Use Foster Park and Green River/Interurban Trail for staging. Horsehead Bend Boat Launch 2.9 mi upstream.

Site Safety: Traffic - USE EXTREME CAUTION ON BRIDGE. Slips, trips, falls. Blackberry brambles on bank. Debris and sandbars in water channel.

Field Notes: Use workboat if water level allows. Lots of blackberry on south bank. Anchor high on trail initially, then cut path to lower the anchor point if time allows.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk:

City Park, Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B3 (River Boom) or equivalent
500	Feet	Line - 3/8" poly line
1	Each	Line throwing gun(s) or device(s)
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

2 Laborer
1 Supervisor

Hwy 167 Bridge at Foster Park

GRD-23.9



GRD-23.9 Photo: Under Highway 167 bridge from Green River Trail on river right, looking SE upriver.

Site Contact

City of Kent Parks, Recreation and Community Services

Land/Property Owner :

220 Fourth Ave S

Kent, WA 98032

253-856-5000

Nearest Address

25945 74th Ave S Kent, WA 98032



Driving Directions

- 1. From I-5 in Seattle, head south to exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (3.1 miles)
- 4. Turn right on 74th Ave S (0.55 miles)
- 5. Where the road bends left, turn right into small parking area for Foster Park/electric substation. Cut bollards and follow trail west under the bridge.

Dykstra Park GRD-29.8

Position - Location: 47° 19.649', -122° 12.610' 47° 19' 38.9", -122° 12' 36.6" 47.32748, -122.21017 Auburn

Strategy Objective: Collection: Collect oil moving downstream on the Green River.

Implementation:

Anchor 200-ft section of boom on north/right bank near A (47.3276, -122.2099). Walk heaving line across bridge to anchor near B (47.3274, -122.2104). Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

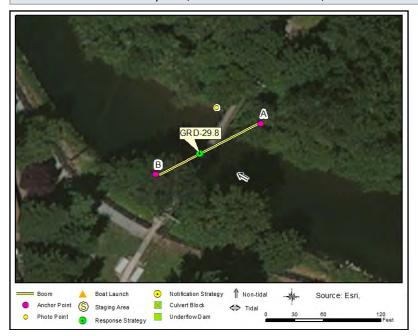
Staging Area: Onsite: Dykstra public park has paved trails to bridge, cut bollards to access. N section of park has small paved area.

Site Safety: Water hazard; slips, trips, falls; overgrown vegetation; in-water recreation

Field Notes: Pedestrian bridge connecting two halves of a park. Easy access to water on N bank. Steep climb and vegetation on S bank.

Watercourse: River - Green River

Resources at Risk: City Park, Downstream Resources, Habitat Restoration Site/Project, Pump Station, Salmonids



Recommended Equipment

3	Kit	Anchoring System(s) - (anchor, lines, floats)
2	Kit	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
200	Feet	Boom - B3 (River Boom) or equivalent
100	Feet	Heaving Line(s)
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

2 Laborer
1 Supervisor

Dykstra Park GRD-29.8



GRD-29.8 Photo: From Green River right, looking SW underneath pedestrian bridge. Taken early May, 600 cfs at Auburn gage.

Site Contact

City of Auburn Maintenance and Operations

Municipality (County/City) : 24 hour contact 910 9TH ST SE

Auburn, WA 98002

253-876-1985

Nearest Address

1471 22nd St NE Auburn, WA 98002



Driving Directions

- 1. From I-5 in Seattle head south to exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.91 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (1.48 miles)
- 5. Take ramp on the right to \$277th St (0.23 miles)
- 6. Turn left on S 277th St (0.81 miles)
- 7. Bear right on Auburn Way N (1.97 miles)
- 8. Turn left on 22nd St NE (0.52 miles)
- 9. Finish at Dykstra Park on the left.

North Green River Park Roadside

GRD-30.5

Position - Location:	47° 19.261', -122° 12.208'	47° 19' 15.7", -122° 12' 12.5"	47.32102, -122.20346	Auburn
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation: On north bank, use stairs from trail to access shore. Secure line to shore near A (47.3209, -122.2047). Using workboat, extend line 400 ft

east and secure near B (47.321, -122.2032). Use line and power winch to extend boom from A to B. Use shoreside anchoring posts,

trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Stage boom at north bank. Launch boat in park. Collect from 102nd Ave.

Site Safety: Road traffic. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: North bank trail access from Pike St NE at Riverview Dr NE (47.3206, -122.2097). Popular spot with fishermen and campers.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Waterfowl Concentrations, Wetlands



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
400	Feet	Boom - B3 (River Boom) or equivalent
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1 Boat Operator	
1 Laborer	
1 Supervisor	

North Green River Park Roadside

GRD-30.5



GRD-30.5 Photo: View from upstream bank at car pull-off on side of 104th Ave SE on river right.

Site Contact

City of Auburn Parks, Arts and Recreation Department

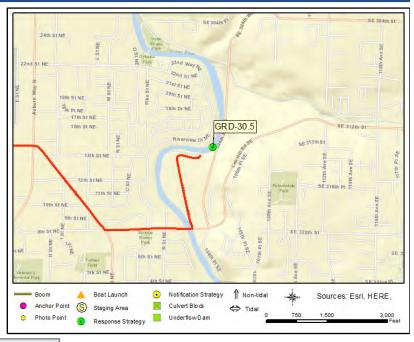
Land/Property Owner : Parks Administration 253-931-3043

City of Auburn Maintenance and Operations

After Hours and Weekends Contact: 24 hour contact 253-876-1985

Nearest Address

31521 102nd Ave SE Auburn, WA 98092



Driving Directions

To access Mullen Slough (south bank):

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149, bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.91 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Bear left on 8th St NE (0.41 miles)
- 9. Turn left on 102nd Ave SE (0.26 miles)
- 10. Cut bollards at dead end and follow dirt road to beach. Collection point is around the corner on the side of 104th Ave SE.

GREEN RIVER/DUWAMISH GRP OCTOBER 2015

North Green River Park GRD-30.6

Position - Location: 4	7° 19.246', -122° 12.304'	47° 19' 14.7", -122° 12' 18.3"	47.32076, -122.20507	Auburn
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Stage boom on north bank, then use stairs from trail to access shore. Secure end of 500 ft line near A (47.3210, -122.2057). Using workboat, extend line ~417 ft SE, securing it on river right near B (47.3206, -122.2042). Use power winch to deploy 500 ft section of boom. Deploy second 600 ft section of boom between points C and D in the same manner as A + B, keeping ~30ft separation between boom segments. Use shoreside anchoring posts or trees to secure boom to shore. Use anchoring systems to keep boom secure in water

Staging Area:	nsite: Cut bollards at Garden/102 Ave SE dead-end to access beach. North bank trail access at Pike St NE at Riverview Dr.

Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Be aware of fishermen on banks and homeless camping in park. To access north bank: 1. After Harvey Rd becomes 15th St NW, turn left at the first light on I St NE. (0.1 mi) 2. Take the next right on 14th St NE (243 ft) 3. In 0.4 mi the road will curve left, just past Pike St NE.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Salmon Habitat, Waterfowl Concentrations, Wetland Habitat



Recommended Equipment

4	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
1100	Feet	Boom - B3 (River Boom) or equivalent
1100	Feet	Line - 3/8" poly line
1	Each	Line throwing gun(s) or device(s)
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator	
2	Laborer	
1	Supervisor	

North Green River Park

GRD-30.6



GRD-30.6 Photo: Looking NW from bank on river right at North Green River Park.

Site Contact

City of Auburn Parks, Arts and Recreation Department

Land/Property Owner : Parks Administration 253-931-3043

City of Auburn Maintenance and Operations

After Hours and Weekends Contact: 24 hour contact 253-876-1985

Nearest Address

6770 102 Ave SE Auburn, WA 98092



Driving Directions

Directions to boat launch/collection (south bank):

- 1. From I-5 in Seattle head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.91 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Turn left on 8th St NE (0.41 miles)
- 9. Turn left on 102nd Ave SE (0.14 miles)
- 10. Cut bollards at dead-end and follow trail to beach.

Fenster Natural Area GRD-32.2

Position - Location: 47° 18.254′, -122° 11.851′	47° 18' 15.2", -122° 11' 51.1"	47.30423, -122.19751	Auburn
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using hand-launch workboat, secure end of 300ft length of boom to bank on river right near near A (47.3047, -122.1979). Then extend boom SE 290 ft SE to beach, securing it on river left near B (47.304, -122.1974). Deploy second 300 ft segment of boom between points C & D, and third 300 ft segment between points E & F, in same manner as A & B, with 30 0ft separation between boom segments. Use shoreside anchoring posts or trees to secure boom to shore. Use anchoring systems to keep boom secure in water.

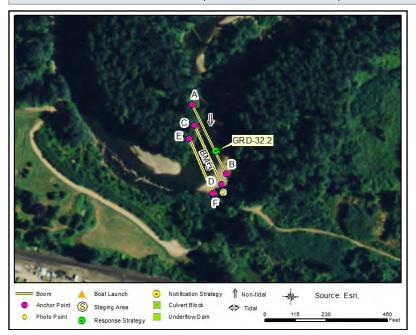
Staging Area:	Onsite:	10K lb limit on steel	plate on access rd close to site.	Can trailer hand-launch boat to bank.
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Site Safety: Site floods in high water. Max 10K lbs on access road - steel plate. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Beach can disappear in high water. Be aware of fishermen on banks and homeless camping in park.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Bird Habitat, Downstream Resources, Habitat Restoration and Mitigation Site, Riparian Vegetation, Waterfowl Concentrations, Wetland



Recommended Equipment

6	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
1000	Feet	Boom - B3 (River Boom) or equivalent
1000	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
2	Laborer
1	Supervisor

GREEN RIVER/DUWAMISH GRP OCTOBER 2015

Fenster Natural Area





GRD-32.2 Photo: Looking NE at beach and eddy on river left in Fenster Natural Area. Downstream gage 1000 cfs/54.5 ft.

Site Contact

King County Parks and Recreation

Primary Contact: 206-296-8100

City of Auburn Maintenance and Operations

Secondary Contact: 24 hour contact

253-876-1985

Nearest Address

2093 4th St SE Auburn, WA 98002



Driving Directions

- 1. From I-5 in Seattle head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.91 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Continue on M St NE (0.69 miles)
- 9. Turn left on 3rd St SE (0.25 miles)
- 10. Turn right on R St SE (0.06 miles)
- 11. Turn left on 4th St SE (0.31 miles)
- 12. Cut gate at turn-around and follow access Rd SE. At junction eddy is on the left.

Auburn Narrows Park GRD-33.5

Position - Location: 47° 18.248′, -122° 10.931′	47° 18' 14.9", -122° 10' 55.9"	47.30413, -122.18219	Auburn
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using hand-launch workboat, secure end of 400ft length of boom to bank on river right near A (47.3043, -122.1815). Then extend boom SE ~315ft securing it to bank on river left near B (47.304, -122.1826). Deploy second 400ft segment of boom between C & D, and third 400 ft segment between E & F, in same manner as Points A & B, with ~30ft separation between boom segments. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

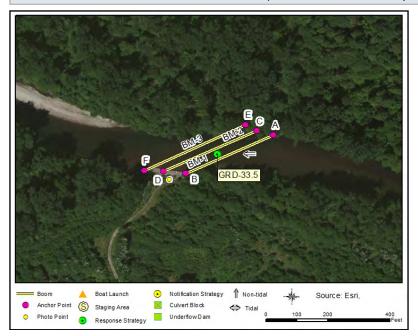
Staaina Area:	Remote: Rail crossing to access site	e. WDFW Soos Creek Boat Launch 0.3 mi upstream. Could hand-launch at bank in low water.

Site Safety: SHERIFF ESCORT REQUIRED. Violent crimes in area. Impassable log jam downstream 0.5 mi. Slips, trips, falls. Woody debris in channel.

Field Notes: Alert BNSF that staff & equipment will be crossing at trail entrance. Watch for trains when entering/leaving site. Bank may disappear in high water. Be aware of fishermen on banks and homeless camping in park.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Waterfowl Concentrations, Wetlands



Recommended Equipment

6	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
1200	Feet	Boom - B3 (River Boom) or equivalent
400	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1 Boat Operator
2 Laborer
1 Supervisor

Auburn Narrows Park

GRD-33.5



GRD-33.5 Photo: Looking upstream NE from bank on river left. Photo taken at 1000 cfs/54.5 ft (downstream gage)

Site Contact

Burlington Northern Santa Fe Railroad

Pre-Notification Required: 800-832-5452

King County Parks and Recreation

Land/Property Contact:

206-296-8100

Nearest Address

12334 SE Green Valley Rd Auburn, WA 98092



Driving Directions

Directions to WDFW Soos Creek boat launch/staging area:

- 1. From I-5, take exit 142A to merge onto WA-18 E toward Auburn.
- 2. Drive 6.2 miles to the Auburn-Black Diamond Rd exit.
- 3. Take ramp right toward Black Diamond.
- 4. Turn right onto SE Auburn Black Diamond Rd.
- 5. In 300 feet take the next right onto SE Green Valley Rd.
- 6. In 350 feet the boat launch is on your left.

From WDFW Soos Creek launch/staging area to site:

- 1. Turn right out of boat launch onto SE Green Valley Rd. (400 ft)
- 2. Turn left onto SE Auburn Black Diamond Rd (0.4 mi)
- 3. Turn right at private BNSF crossing across from Park & Ride entrance.
- 4. Cut gate (notify BNSF first), use caution while crossing active tracks and drive N 0.2 mi to river.

Mosby Farms GRD-34.4

Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using hand-launch workboat, secure end of 400ft length of boom to bank on river right near A (47.2939, -122.1664). Extend boom SW ~335 ft, securing it to bank on river left near B (47.2935, -122.1676). Deploy second and third segments of 400 ft boom between C & D, and E & F, in same manner as A & B, with 30ft to 60ft separation between boom segments. Adjust as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

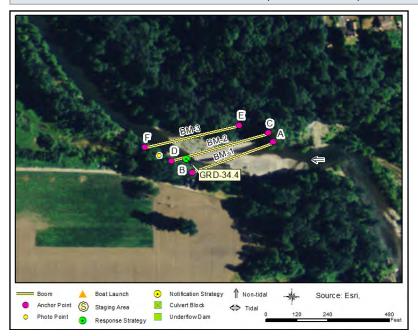
Staaina Area:	Onsite: Small dirt/grass area at end of dirt road, WDFW fish counting station/boat stored onsite.
Staaina Area:	Unsite: Small dirt/grass area at end of dirt road, worw fish counting station/boat stored onsite.

Site Safety: Beehives in area. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Road owned by Mosby Farm but WDFW keeps seasonal screw trap on site. Hand-launch from bank. Large sandbar across on river right often has central channel. Adjust boom and anchors as needed.

Watercourse: River - Below a Dam - Low flow July - Sept. Sandbar and channel braiding will change with water level and time.

Resources at Risk: Downstream Resources, Salmon Habitat, Waterfowl Concentrations, Wetlands



Recommended Equipment

6	Each	Anchoring System(s)- Shoreside		
1	Each	Bolt Cutters		
1200	Feet	Boom - B3 (River Boom) or equivalent		
1200	Feet	Line - 3/8" poly line		
1	1 Each Vac Truck or Skimmer and Storage			
1	Each	Winch - Power Winch		
1	Each	Workboat(s) - (hand-launch)		

Recommended Personnel

1	Boat Operator
2	Laborer
1	Supervisor

Mosby Farms GRD-34.4



GRD-34.4 Photo: Looking N from river left bank just downstream of WDFW counting station. Photo taken at 1000 cfs/54.5 height.

Site Contact

Mosby Farms

Private Owner : Land owner 253-939-7666

King County Parks and Recreation

Emergency Contact: 206-296-8100

Nearest Address

12586 SE Green Valley Rd Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.91 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Continue on M St NE (0.69 miles)
- 9. Turn left on 3rd St SE (0.25 miles)
- 10. Turn right on R St SE (0.06 miles)
- 11. Bear left on SE Auburn Black Diamond Rd (1.5 miles)
- 12. Bear right (0.05 miles)
- 13. Continue on SE Green Valley Rd (0.51 miles)
- 14. Turn left and cut gate for access to Mosby Brothers Farms access road.
- 15. Follow farm road for 0.3 miles to WDFW equipment.

Whitney Bridge High Water

GRD-41.4

Position - Location: 47° 16.940', -122° 3.299' 47° 16' 56.4", -122° 3' 17.9" 47.28233, -122.05498
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using workboat, secure end of 400 ft section of boom on river left near A (47.2819, -122.0543). Adjust anchor as required by sandbars or flow speed. Extend boom ~360 ft NW to upstream edge of boat launch on river right and secure near B (47.2826, -122.0552). Secure 100 ft section of boom at B and extend east along bank to create collection pocket. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area:	Onsite: Stage in parking lot on NW side of road; use boat launch across street			
Site Safety:	Car traffic between parking and launch. Popular boat launch. Very shallow in low water. Pilings on river left. Slips, trips, falls. Vegetation			
Field Notes:	Collection is only feasible if water is above average. Large cobbles bankside in low water. Pilings on river left may be hidden in high water.			
Watercourse:	River - Below a Dam - Low flow July - Sept			

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Salmon Habitat, Wetlands



Recommended Equipment

3	Each	Anchoring System(s)- Shoreside	
500	Feet	Boom - B3 (River Boom) or equivalent	
500	Feet	Line - 3/8" poly line	
1	1 Each Vac Truck or Skimmer and Storage		
1	Each	Workboat(s) - of adequate size for type and amount of boom	

Recommended Personnel

1	Boat Operator
1	Laborer
1	Supervisor

Whitney Bridge High Water

GRD-41.4



GRD-41.4 Photo: Upstream of Whitney Bridge on river right looking SE during low water in July (370 cfs/53.4 ft at Auburn gage).

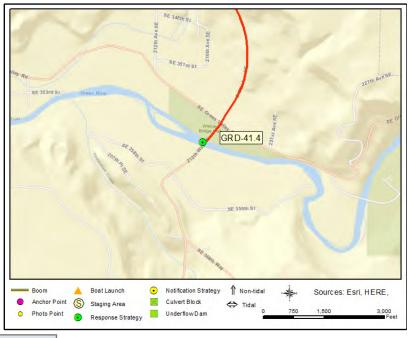
Site Contact

King County Parks and Recreation

Land/Property Owner: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

35628 212th Way SE Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (8.94 miles)
- 4. Turn right on 152nd Ave SE (0.76 miles)
- 5. Continue on Kent Black Diamond Rd SE (3.18 miles)
- 6. Continue on SE Auburn Black Diamond Rd (2.75 miles)
- 7. Turn right on 218th Ave SE (1.37 miles)
- 8. Bear right on 212th Way SE (0.11 miles)
- 9. Just past the intersection on SE Green Valley Rd, before the bridge, turn right for staging area or left for boal launch.

Whitney Bridge GRD-41.5

Position - Location: 47°	16.921', -122° 3.226'	47° 16' 55.2", -122° 3' 13.6"	47.28201, -122.05377	Auburn
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using workboat, secure end of 400 ft section of boom on river left near A (47.2817, -122.0534). Adjust anchor as required by sandbars or flow speed. Extend boom ~360 ft NW to upstream edge of boat launch on river right and secure near B (47.2824, -122.0544). Secure 100 ft section of boom at B and extend east along bank to create collection pocket. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area:	Onsite: Parl	ring area on NW side of road has	portable restroom and parkin	g. Keta Creek Hatcher	v nearby for other facilities.
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Site Safety: Car traffic. Popular boat launch. Very shallow in low water. Pilings on river left. Slips, trips, falls. Brambles on bank.

Field Notes: In low water, motorized boat may not be an option. Large cobbles bankside in low water. Pilings on river left may be hidden in high water.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Riparian Area, Salmon Habitat, Wetlands



Recommended Equipment

3	Each	Anchoring System(s)- Shoreside	
500	Feet	oom - B3 (River Boom) or equivalent	
500	Feet	ine - 3/8" poly line	
1	Each	Vac Truck or Skimmer and Storage	
1	Each	Workboat(s) - of adequate size for type and amount of boom	

Recommended Personnel

1	Boat Operator
1	Laborer
1	Supervisor

Whitney Bridge GRD-41.5



GRD-41.5 Photo: From bottom of Whitney Bridge boat launch on river right looking S during low water in July (370 cfs/53.4 ft at Auburn gage).

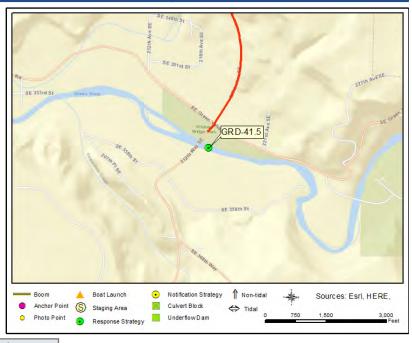
Site Contact

King County Parks and Recreation

Land/Property Owner: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

35628 212th Way SE Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (8.94 miles)
- 4. Turn right on 152nd Ave SE (0.76 miles)
- 5. Continue on Kent Black Diamond Rd SE (3.18 miles)
- 6. Continue on SE Auburn Black Diamond Rd (2.75 miles)
- 7. Turn right on 218th Ave SE (1.37 miles)
- 8. Bear right on 212th Way SE (0.11 miles)
- 9. Just past the intersection on SE Green Valley Rd, before the bridge, turn right for staging area or left for boal launch.

Flaming Geyser State Park

GRD-44.3

Position - Location: 47° 16.420', -122° 1.408' 47° 16' 25.2", -122° 1' 24.5" 47.27367, -122.02347	Position - Location:	47° 16.420', -122° 1.408'	47° 16' 25.2", -122° 1' 24.5"	47.27367, -122.02347	Aubur
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using hand-launch workboat, secure end of 500ft length of boom to bank on river right near A (47.2739, -122.022). Extend boom SW ~495 ft, securing it to bank on river left near C (47.2734, -122.0237). Deploy second and third segments of 500 ft boom between C & D, and E & F, and fourth and fifth segments of 400 ft boom between G & H and I & J, in same manner as A & B, adjusting anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

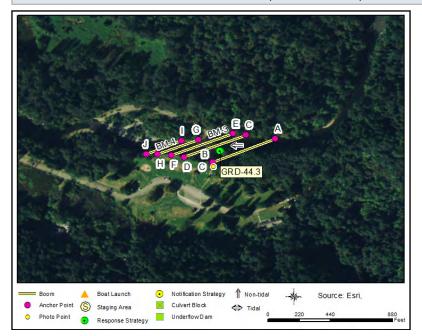
Staging Area: Onsite: Flush restrooms, covered pavilions, water and power. Coordinate with rangers.

Site Safety: Fast shallow water and rapids in rainy season. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Can hand launch in 5 spots. Can load boom on boat in high water but use winch and line to deploy boom in summer. Popular with kayakers, rafters and floaters. Boaters in Gorge may need to exit here.

Watercourse: River - Below a Dam - Summer flow <1k, winter can exceed 3 knots. Low flow July - Sept.

Resources at Risk: Downstream Resources, Salmon Habitat, Sensitive Resources, State Park



Recommended Equipment

42	Each	Anchoring System(s) - (anchor, lines, floats)
10	Each	Anchoring System(s)- Shoreside
2100	Feet	Boom - B3 (River Boom) or equivalent
1000	Feet	Line - 3/8" poly line
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
3	Laborer
1	Supervisor

Flaming Geyser State Park

GRD-44.3



GRD-44.3 Photo: Looking NE from C, eddy closest to geyser and furthest upstream on river left. 1000cfs at Auburn gage, 2.5 knots.

Site Contact

Washington State Parks and Recreation Commission

Primary Contact : Tahoma Gateway 23700 SE Flaming Geyser Rd Auburn, WA 98092 360-902-8844

Nearest Address

23898 SE Flaming Geyser Rd Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (8.94 miles)
- 4. Turn right on 152nd Ave SE (0.76 miles)
- 5. Continue on Kent Black Diamond Rd SE (3.18 miles)
- 6. Continue on SE Auburn Black Diamond Rd (2.75 miles)
- 7. Turn right on 218th Ave SE (1.37 miles)
- 8. Turn left on SE Green Valley Rd (0.59 miles)
- 9. Turn right on SE Flaming Geyser Rd (0.21 miles)
- 10. Follow road to office and parking area at end.

Kanaskat-Palmer State Park Group Camp

GRD-57.0

OCTOBER 2015

Position - Location: 47° 19.106′, -121	° 53.790' 47° 19' 6.4", -121° 53' 47	7.4" 47.31844, -121.89650	Ravensdale
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish

Implementation:

Using hand-launch workboat, secure end of 300ft length of boom to bank on river right near A (47.3182, -121.8958). Extend boom W ~250 ft, securing it to bank on river left near B (47.3185, -121.8968). Deploy second and third segments of 300 ft boom between C & D, in same manner as A & B, adjusting anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

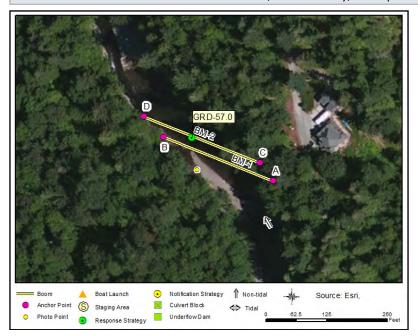
Character at America	Oneiter Consumer has produce flowly to the control than 1 and 2 and 2 ATV 250 ft to illustrate with land / the in-
Staaina Area:	Onsite: Group camp has parking, flush toilets, water. Hand-carry or ATV 250 ft trail to site with logs/stairs.

Site Safety: Class IV and V rapids just downstream, then 5 miles of gorge. Unpaved trail. Slips, trips and falls.

Fast shallow water and rapids. Hand-launch kayak at site. 250 ft unpaved trail from staging area.

Watercourse: River - Below a Dam - Low flow July - Sept. Class II and IV rapids downstream.

Resources at Risk: Downstream Resources, Fish Hatchery, Harlequin Ducks, Riparian Area, Salmon Habitat, State Park, Water Intakes, Wetlands



Recommended Equipment

4	Each	Anchoring System(s)- Shoreside
600	Feet	Boom - B3 (River Boom) or equivalent
500	Feet	Line - 3/8" poly line
1	Each	Skimmer (appropriately sized) with Portable Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
2	Laborer
1	Supervisor

Kanaskat-Palmer State Park Group Camp





GRD-57.0 Photo: Looking NW downstream on river left at Kanaskat-Palmer group camp water access.

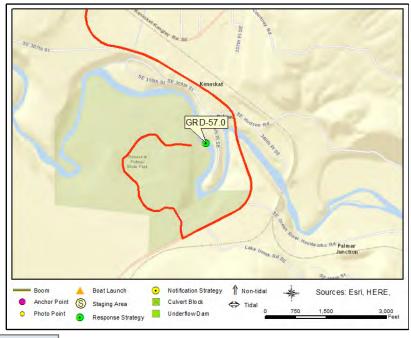
Site Contact

Washington State Parks and Recreation Commission

Primary Contact : Tahoma Gateway 23700 SE Flaming Geyser Rd Auburn, WA 98092 360-902-8844

Nearest Address

32130 Cumberland Kanaskat Rd SE Ravensdale, WA 98051



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 154A.
- 2. At exit 154A take ramp on the left and go on I-405 N toward Renton (3.8 miles)
- 3. At exit 4 take ramp on the right to WA-169 S toward Bronson Way/W/Maple Valley/Enumclaw (0.09 miles)
- 4. Take ramp to WA-169 S toward Maple Valley/Enumclaw (0.26 miles)
- 5. Bear right on WA-169 (Maple Valley Hwy) (13.72 miles)
- 6. Turn left on SE Kent Kangley Rd (3.42 miles)
- 7. Turn right on Retreat-Kanaskat Rd SE (Retreat Kanasket Rd SE) \$.11 miles)
- 8. Bear right (0.03 miles)
- 9. Bear right on Cumberland Kanaskat Rd SE (Cumberland Kanasket Rd SE) (1.76 miles)
- 10. Turn right into Kanaskat-Palmer State Park. (0.5 miles)
- 11. Take the first right towards Group Camp (0.5 miles).
- 12. Park and stage at group camp parking area.

Sandy Beach GRD-59.1

Position - Location: 47° 18.802′, -121° 52.205′	47° 18' 48.1", -121° 52' 12.3"	47.31337, -121.87008	Ravensdale
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Strategy Objective: Collection: Collect oil moving downstream on Green/Duwamish.

Implementation:

Using kayak/canoe or line throwing device, secure end of 200ft length of line to north bank on river right near A (47.3135, -121.87), on downstream end of creek mouth. Extend line ~165 ft SW to river left and secure near B (47.3131, -121.8703). Use power winch to deploy boom. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

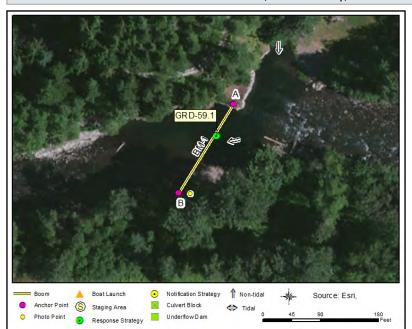
Staaina Area:	Insite: Area is only used by recreation and Tacoma Power. Stage at Powerline Rd or parking at 1	Facama antranca
Staaina Area:	insile. Alea is only used by tecreation and tacoma power. Stage at bowerine kn or backing at t	lacoma enitance

Site Safety: Fast shallow water. Downstream rapids. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Hand-launch from bank. Short footpath from road. Potential emergency access to north bank from private property at end of SE Hudson Rd.

Watercourse: River - Below a Dam - Low flow July - Sept. Rapids in area. Whitewater just upstream.

Resources at Risk: Downstream Resources, Fish Hatchery, Salmon Habitat, Waterfowl, Wetlands



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
200	Feet	Boom - B3 (River Boom) or equivalent
1	Each	Line throwing gun(s) or device(s)
1	Each	Vac Truck or Skimmer and Storage
1	Each	Winch - Power Winch
1	Each	Workboat(s) - (hand-launch)

Recommended Personnel

1	Boat Operator
1	Laborer
1	Supervisor

Sandy Beach GRD-59.1



GRD-59.1 Photo: Looking NE upriver from river left at creek mouth.

Site Contact

Tacoma Water

Emergency Contact : Green River Water Treatment Facility 36932 SE Green River Headworks Rd Ravensdale, WA 98051

253-502-8346

Nearest Address

34988 SE Green River Headworks Rd Ravensdale, WA 98051



Driving Directions

- 1. From I-5 in Seattle, head S to exit 142A.
- 2. At exit 142A, take ramp right for WA-18 East toward Auburn.
- 3. In 11.3 miles, take exit ramp right for WA-516 East toward Covington.
- 4. Turn right onto WA-516 E / SE 272nd St.
- 5. In 4.8 miles, turn right onto Retreat-Kanaskat Rd SE (sign for Kanaskat).
- 6. In 3.1 miles, turn right onto Cumberland Kanaskat Rd SE (sign for Kanaskat-Palmer State Park).
- 7. In 1.5 miles, turn left onto SE Green River Headworks Rd (sign for Tacoma Water).
- 8. The site is 1.1 miles down on the left. Stage on parallel dirt road or continue straight to parking and security at Tacoma Water Filtration Plant.

Tacoma Water Diversion Dam

GRD-61.0

Position - Location: 47° 18.030′, -121° 5	47° 18′ 1.8″, -121° 50′ 24.4″	47.30049, -121.84010	Ravensdale
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Strategy Objective: Collection: Protect public water intake. Remove oil from river.

Implementation:

On river left downstream of bridge, descend to bank and secure 250 ft of line near A (47.3003, -121.8405). Walk line across bridge and secure near B (47.3005, -121.8397). Use power winch to deploy boom. Deploy second 200 ft section of boom between C & D using same process. Use sorbent boom to line downstream side of BM-2 and water intake. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Roadside pull-off at bridge and paved parking at collection site.

Site Safety: Radio-controlled road, coordinate with Tacoma Water/Howard Hanson security. Slips, trips, falls. Vegetation and blackberry brambles or

Field Notes: Calm pool with swirling eddies above Tacoma Water diversion dam. Use caution near dam spillway.

Watercourse: River - Below a Dam - Low flow July - Sept. Banks may be difficult to access in high water. Tacoma Water may have boats & decon

Resources at Risk: Downstream Resources, Economic Resource, Habitat Restoration Site/Project, Public Health and Safety, Salmon Habitat, Water Intakes



Recommended Equipment

4	Each	Anchoring System(s)- Shoreside
450	Feet	Boom - B3 (River Boom) or equivalent
450	Feet	Boom - Sorbent
500	Feet	Line - 3/8" poly line
1	Each	Machete(s) - (or other vegetation cutting tool)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

2 Laborer
1 Supervisor

Tacoma Water Diversion Dam

GRD-61.0



GRD-61.0 Photo: Looking S upriver on river right from parking at Tacoma Water Diversion Dam.

Site Contact

Tacoma Water

Emergency Contact : Green River Water Treatment Facility 36932 SE Green River Headworks Rd Ravensdale, WA 98051

253-502-8346

Nearest Address

36318 SE Green River Headworks Rd Ravensdale, WA 98051



Driving Directions

- 1. From I-5 in Seattle, head S to exit 142A.
- 2. At exit 142A, take ramp right for WA-18 East toward Auburn.
- 3. In 11.3 miles, take exit ramp right for WA-516 East toward Covington.
- 4. Turn right onto WA-516 E / SE 272nd St.
- 5. In 4.8 miles, turn right onto Retreat-Kanaskat Rd SE (sign for Kanaskat).
- 6. In 3.1 miles, turn right onto Cumberland Kanaskat Rd SE (sign for Kanaskat-Palmer State Park).
- 7. In 1.5 miles, turn left onto SE Green River Headworks Rd (sign for Tacoma Water).
- 8. Security checkpoint is 2 miles down. Remainder of road is radio-controlled. Coordinate access to site. Site is 1 mile past gate on left.

Mill Creek Carpinito Brothers Corn Maze

MILL-1.6

Position - Location: 47° 21.339′, -122° 14.892′	47° 21' 20.3", -122° 14' 53.5"	47.35564, -122.24820	Kent
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Strategy Objective: Collection, Underflow Dam: Remove product from Mill Creek between Highway 167 and S 277th St

Implementation: DO NOT DEPLOY IN MID-SEPT TO OCT. Use boom and sorbent for initial containment. Use sandbags with

DO NOT DEPLOY IN MID-SEPT TO OCT. Use boom and sorbent for initial containment. Use sandbags with PVC to create an underflow dam at this location. The creek is approximately 5' in width but will vary seasonally. Responders must receive Emergency Hydraulic Project Approval (HPA) permit from WDFW prior to using culvert blocks and underflow dams; call WDFW duty pager at 360-534-8233.

Staging Area: Onsite: Large parking area immediately adjacent. Some facilities across street at offices.

Site Safety: Road traffic, slips, trips and falls. Late Sept - Oct is children's event location.

Field Notes: Large parking lot leads to footbridge. Vegetation cleared seasonally.

Watercourse: Creek - Low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B3 (River Boom) or equivalent
200	Feet	Boom - Sorbent
	Assort	Equipment (shovels, pickaxes, tamper bars, sledge hammers)
	Assort	Fill material (sand, earth, gravel, sandbags)
10	Each	Pipe(s), PVC (8 inch x 8ft)
1	Roll	Plastic Sheeting
80	Each	Sandbag(s)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

3 Laborer
1 Supervisor

Mill Creek Carpinito Brothers Corn Maze





MILL-1.6 Photo: From parking lot, looking SE at footbridge over Mill Creek just downstream of Highway 167.

Site Contact

Carpinito Brothers, Inc.

Private Owner : Owner 1148 Central Ave N Kent, WA 98032 253-854-5692

Nearest Address

27528 68th Ave S Kent, WA 98032



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.84 miles)
- 4. Turn right on Washington Ave S (W Valley Hwy) (0.07 miles)
- 5. Continue on W Valley Hwy (68th Ave S) (1.5 miles)
- 6. Just before light at S 277th St, turn left into the event parking lot (may have to cut chains/ropes).
- 7. Stage in parking lot.

Mill Creek by Emerald Downs

MILL-3.4

Position - Location:	47° 19.987', -122° 14.462'	47° 19' 59.2", -122° 14' 27.7"	47.33312, -122.24103	Auburn
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Strategy Objective: Underflow Dam: Contain and recover product on Mill Creek upstream of 29th St NW bridge

Implementation:

Use boom and sorbent for initial containment. Use sandbags with PVC to create an underflow dam on upstream end of crossing or as conditions dictate. The creek is approximately 4' in width but will vary seasonally. Responders must receive Emergency Hydraulic Project Approval (HPA) permit from WDFW prior to using culvert blocks and underflow dams; call WDFW duty pager at 360-534-8233.

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Staaina Area:	Onsite: Best access from M St NW off 15th, 29th St is closed, use road for staging.

Site Safety: Rail crossing nearby. Slips, trips, falls. Vegetation and blackberry brambles on bank.

Field Notes: Empty lot/abandoned farm. Low flowing drainage under closed road. Wetland-like mud and vegetation off road.

Watercourse: Creek - Storm drainage; low flow July - Sept

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
100	Feet	Boom - B3 (River Boom) or equivalent
100	Feet	Boom - Sorbent
	Assort	Equipment (shovels, pickaxes, tamper bars, sledge hammers)
	Assort	Fill material (sand, earth, gravel, sandbags)
8	Each	Pipe(s), PVC (8 inch x 8ft)
1	Roll	Plastic Sheeting
60	Each	Sandbag(s)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

3 Laborer
1 Supervisor

Mill Creek by Emerald Downs





 $\mbox{\rm MILL-3.4}$ Photo: From 29th St NW looking W at Mill Creek upstream of road crossing.

Site Contact

No Information

Unknown:

Nearest Address

839 29th St NW Auburn, WA 98001



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.84 miles)
- 4. Take ramp right for WA-167 South toward Auburn (3.6 miles)
- 5. Take ramp right for 15th St NW toward Auburn Way (0.3 miles)
- 6. Turn left onto 15th St NW (0.2 miles)
- 7. Turn left onto M St NW (0.8 miles)
- 8. Turn right onto 29th St NW (0.1 miles).
- 9. Site is just past road closure signs and farm driveway.

Alternate access via Interurban Trail at 37th Ave NW (NE of site).

Newaukum Creek at 424th

NWKC-6.4

Position - Location:	47° 13.268', -122° 1.941'	47° 13' 16.1", -122° 1' 56.5"	47.22113, -122.03235	Enumclaw
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Strategy Objective: Collection: Collect oil moving downstream on Newaukum Creek

Implementation:

Anchor 100-ft section of boom near A (47.2211, -122.0322). Throw heaving line across stream and extend boom NW across creek to anchor downstream near B (47.2212, -122.0325). Create collection pocket by angling boom a few feet upstream to C. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

Staging Area: Onsite: Small space to pull off road; use nearby driveways/fields.

Site Safety: Road traffic; overgrown vegetation; slips, trips, falls; livestock

Field Notes: Upstream field has irrigation ditches & deep mud; downstream is front yard but easy slope past vegetation.

Watercourse: Creek - Newaukum Creek

Resources at Risk: Downstream Resources, Habitat Restoration Site/Project, Salmonids, Waterfowl, Wetlands



Recommended Equipment

2	Kit	Anchoring System(s) - (anchor, lines, floats)
2	Kit	Anchoring System(s)- Shoreside
100	Feet	Boom - B3 (River Boom) or equivalent
1	Each	Heaving Line(s)
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

2 Laborer
1 Supervisor

Newaukum Creek at 424th

NWKC-6.4



NWKC-6.4 Photo: From SE 424th St bridge, looking downstream at Newaukum Creek. Taken early May, 18 cfs at Newaukum gage.

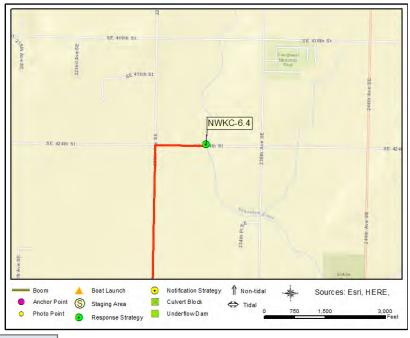
Site Contact

No Information

Private Owner:

Nearest Address

23094 SE 424th St Enumclaw, WA 98022



Driving Directions

- 1. From I-5 in Seattle, head south to exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.9 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Continue on M St NE (1.46 miles)
- 9. Turn left on WA-164 (Auburn Way S) (11.06 miles)
- 10. Turn left on 228th Ave SE (0.75 miles)
- 11. Turn right on SE 424th St (0.25 miles)
- 12. Finish at 23094 SE 424th St, 98022, on the left

Newaukum Creek at 248th

NWKC-7.9

Position - Location:	47° 12.832', -122° .655'	47° 12' 49.9", -122° 0' 39.3"	47.21386, -122.01092	Enumclaw
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Strategy Objective: Sorbent, Underflow Dam: Collect oil moving downstream on Newaukum Creek

Implementation: Use sorbent for initial containment. If time allows, use sandbags with PVC to create an underflow dam at this location. Responders must

receive Emergency Hydraulic Project Approval (HPA) permit from WDFW prior to using culvert blocks and underflow dams; call WDFW

duty pager at 360-534-8233.

Staging Area: Onsite: Driveways/yards next to site. Partial shoulder. Quiet road.

Site Safety: Road hazard; slips, trips, falls; overgrown vegetation

Field Notes: Well maintained yards with low banks on roadside

Watercourse: Creek - Newaukum Creek

Resources at Risk: City Park, Downstream Resources, Habitat Restoration Site/Project, Salmonids, Waterfowl, Wetlands



Recommended Equipment

2	Kit	Anchoring System(s)- Shoreside
100	Feet	Boom - Sorbent
	Assort	Equipment (shovels, pickaxes, tamper bars, sledge hammers)
	Assort	Fill material (sand, earth, gravel, sandbags)
	Unknown	Pipe(s), PVC (8 inch x 8ft)
1	Each	Vac Truck or Skimmer and Storage (if collection)

Recommended Personnel

4 Laborer
1 Supervisor

Newaukum Creek at 248th

NWKC-7.9



NWKC-7.9 Photo: From 248th Ave SE bridge looking SW upstream at Newaukum Creek. Taken early May, 18 cfs at Newaukum gage.

Site Contact

No Information

Private Owner:

Nearest Address

43109 248th Ave SE Enumclaw, WA 98022



Driving Directions

- 1. From I-5 in Seattle, head south to exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (2.9 miles)
- 4. Turn right onto ramp and go on WA-167 S toward Auburn (3.59 miles)
- 5. Take ramp on the right to 15th St Nw (0.28 miles)
- 6. Turn left on 15th St NW toward Auburn Way (1.17 miles)
- 7. Continue on Harvey Rd (0.53 miles)
- 8. Continue on M St NE (1.46 miles)
- 9. Turn left on WA-164 (Auburn Way S) (12.1 miles)
- 10. Turn left on 244th Ave SE (0.95 miles)
- 11. Turn right on SE 424th St (0.28 miles)
- 12. Make sharp right on 252nd Way SE (0.09 miles)
- 13. Continue on 248th Ave SE (0.41 miles)
- 14. Finish at 43109 248th Ave SE, 98022, on the right

Springbrook Creek at SW 7th St

SPBC-1.1

Position - Location: 47° 28.342′, -122° 14.184′	47° 28' 20.5", -122° 14' 11.0"	47.47237, -122.23640	Renton
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Strategy Objective: Collection: Remove product from Springbrook Creek.

Implementation:

Using hand-launch workboat, secure one end of 100ft length of boom to shore near Point A (47.4722, -122.2362). Then extend boom ~100ft NE and secure remaining boom end to opposite shore at/near Point B (47.472498, -122.23615). Deploy second 100ft segment of boom between Points C & D in same manner as Points A & B, with ~30ft separation between boom segments. Adjust anchor points and angles as needed for conditions. Use anchoring systems to keep boom secure in water. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore.

Staging Area: Onsite: Alert King County South Plant Main Control Center before arrival, use parking lot to stage.

Site Safety: Slips, trips falls. Vegetation and blackberry brambles on bank.

Field Notes: Alert King County South Plant Main Control Center before arrival to prevent security alert. Hand-launch small boat/raft from trail.

Watercourse: Creek - Low flow July - Sept

Resources at Risk: Bald Eagle Nesting, Estuary Resources, Great Blue Heron Rookeries, Pump Station, Salmon Habitat, Wetland Habitat



Recommended Equipment 4 Each Anchoring System(s)- Shoreside 200 Feet Boom - B3 (River Boom) or equivalent 1 Each Vac Truck or Skimmer and Storage 1 Each Workboat(s) - (hand-launch)

Recommended Personnel

1 E	Boat Operator
1 L	Laborer
1 5	Supervisor

Springbrook Creek at SW 7th St

SPBC-1.1



SPBC-1.1 Photo: Looking NE from Springbrook trail under SW 7th St entrance to King County South Treatment Plant.

Site Contact

King County Wastewater South Plant Main Control Center

Land/Property Owner : Emergency contact

1200 Monster Road SW

Renton, WA 98057

206-263-1760

Nearest Address

699 Oakesdale Ave SW Renton, WA 98057



Driving Directions

- 1. Take I-5 S from Seattle
- 2. Go south on I-5 to exit 157
- 3. At exit 157 take ramp on the right to WA-900 E/M L King Way (0.2 miles)
- 4. Continue on WA-900 (Martin Luther King Jr Way S) (1.81 miles)
- 5. Turn right on 68th Ave S (0.39 miles)
- 6. Continue on Monster Rd SW (0.52 miles)
- 7. Continue on Oakesdale Ave SW (0.33 miles)
- 8. Turn right at the light at SW 7th St towards the King County South Treatment Plant

Springbrook Creek at Grady Way

SPBC-1.4

Position - Location:	47° 28.079', -122° 14.055'	47° 28' 4.7", -122° 14' 3.3"	47.46798, -122.23425	Renton

Strategy Objective: Collection: Collect oil moving downstream on Springbrook Creek.

Implementation:

Secure one end of 100ft length of boom to shore near Point A (47.468, -122.2345). Extend boom ~75ft NE and secure remaining boom end to opposite shore at/near Point B (47.4681, -122.2342). Deploy length of sorbent boom between B3 boom and culvert during high flow. Adjust anchor points and angles as needed for conditions. Use shoreside anchoring posts, trees, or existing structures to secure boom to shore. Use anchoring systems to keep boom secure in water.

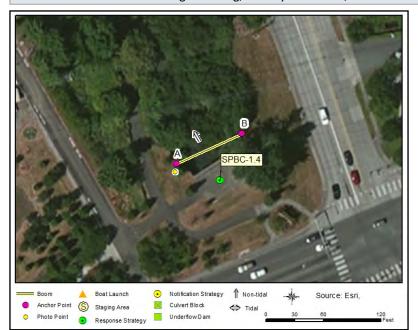
Staaina Area:	Onsite: Fire access road is not used. Can stage on road or in parking area or cut bollards to tr	rail
Staaina Area:	Unsite: Fire access road is not used. Can stage on road or in parking area or cut pollards to tr	all.

Site Safety: Slips, trips falls. Vegetation and large woody debris on bank and in channel.

Field Notes: Notify King County South Main Control Center to avoid security alert.

Watercourse: Creek - Low flow July - Sept

Resources at Risk: Bald Eagle Nesting, Estuary Resources, Freshwater Wetlands, Great Blue Heron Rookeries, Salmon Habitat



Recommended Equipment

2	Each	Anchoring System(s)- Shoreside
1	Each	Bolt Cutters
100	Feet	Boom - B3 (River Boom) or equivalent
100	Feet	Boom - Sorbent
1	Each	Vac Truck or Skimmer and Storage

Recommended Personnel

1	Laborer
1	Supervisor

Springbrook Creek at Grady Way

SPBC-1.4



SPBC-1.4 Photo: Looking E at Springbrook Creek culvert entrance just downstream of SW Grady Way and I-405.

Site Contact

King County Wastewater South Plant Main Control Center

Land/Property Owner : Emergency contact

1200 Monster Road SW

Renton, WA 98057

206-263-1760

Nearest Address

1362 SW Grady Way Renton, WA 98057



Driving Directions

- 1. Take I-5 South from Seattle.
- 2. Go south on I-5 toward exit 157 in Renton
- 3. At exit 157 take ramp on the right to WA-900 E/M L King Way (0.2 miles)
- 4. Continue on WA-900 (Martin Luther King Jr Way S) (1.81 miles)
- 5. Turn right on 68th Ave S (0.39 miles)
- 6. Continue on Monster Rd SW (0.52 miles)
- 7. Continue on Oakesdale Ave SW (0.69 miles)
- 8. Turn right on SW Grady Way (0.07 miles)
- 9. Take the first right into the fire access road. Block road as needed, cut bollards to trail, or use parking turnaround.

APPENDIX 4B Notification Strategy 2-Pagers

NOTIFICATION STRATEGIES – LIST

BLKR-0.3-N BS00-1.0-N CRSP-1.2-N GRD-37.9-N GRD-42.0-N

GRD-59.8-N GRD-64.6-N

Black River Pump Station

BLKR-0.3-N

Position - Location: 47° 28.500', -122° 14.712' 47° 28' 30.0", -122° 14' 42.7" 47.47499, -122.24520 Renton

Strategy Objective: Notification: Stop flow of water to/from Black River and Springbrook Creek

Implementation: Call King County South Plant Control Center at 206-263-1760. Inform them of the situation and request that flow at the Black River

Pump Station be adjusted or stopped.

Field Notes: Pump Station is unstaffed but control center is nearby and can send staff to site.

Watercourse: Freshwater Wetland - Riparian area with flow from Springbrook/Mill Creek

Resources at Risk: Bald Eagle Nests, Estuary Resources, Habitat Restoration Site/Project, Heron Rookeries, Pump Station, Waterfowl Use Area



Communication Process and Action:

Call King County South Plant Control Center at 206-263-1760. Inform them of the situation and request that flow at the Black River Pump Station be adjusted or stopped.

Black River Pump Station

BLKR-0.3-N



BLKR-0.3-N Photo: King County Black River Pump Station, from south bank looking north, upstream of pump station. Black River Riparian forest to the right on the photo.

Site Contact

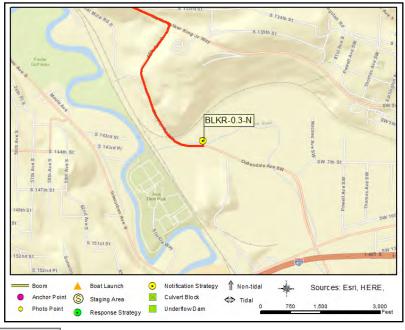
King County Wastewater South Plant Main Control Center

Emergency Contact : Emergency contact

1200 Monster Road SW Renton, WA 98057 206-263-1760

Nearest Address

550 Monster Rd SW Renton, WA 98057



Driving Directions

- 1. Start at I 5 Seattle
- 2. Go southeast on I-5 toward exit 157
- 3. At exit 157 take ramp on the right to WA-900 E/M L King Way (0.2 miles)
- 4. Continue on WA-900 (Martin Luther King Jr Way S) (1.81 miles)
- 5. Turn right on 68th Ave S (0.39 miles)
- 6. Continue on Monster Rd SW (0.11 miles)
- 7. Finish at 550 Monster Rd SW, 98057, on the left

WDFW Soos Creek Hatchery

BSOO-1.0-N

Position - Location: 47° 18.568', -122° 10.079' 47° 18' 34.1", -122° 10' 4.8" 47.30947, -122.16799 Auburn

Strategy Objective: Notification: Prevent fish from being released during a spill or protect salmon at hatchery

Implementation: Call Soos Creek Hatchery at (253) 931-3950 and explain the situation regarding the spill.

Field Notes: Also release at Icy Creek and Cristy Creek ponds. Releases from March to May.

Watercourse: Creek -

Resources at Risk: Fish Hatchery, Resident Fish, Salmon - Chinook, Salmon - Coho, Steelhead



Communication Process and Action:

Call Soos Creek Hatchery at (253) 931-3950 and explain the situation regarding the spill.

If the spill is on a tributary of Big Soos Creek, advise they deploy spill response equipment. Otherwise, advise they consider delaying fish releases until the situation is resolved.

Soos Creek will also notify Icy Creek and Flaming Geyser staff. The Icy Creek (Pautzke) Ponds are located on a tributary near Green River RM 48.5. The Flaming Geyser (Dick Brice) Ponds are near Green River RM 45 on Cristy Creek.

If nobody can be reached at above number, try (253) 931-3928

WDFW Soos Creek Hatchery

BSOO-1.0-N



BSOO-1.0-N Photo: Adult holding pond in Soos Creek, looking N from parking area on creek left.

Site Contact

WDFW Soos Creek Hatchery

Land/Property Owner: 253-931-3950

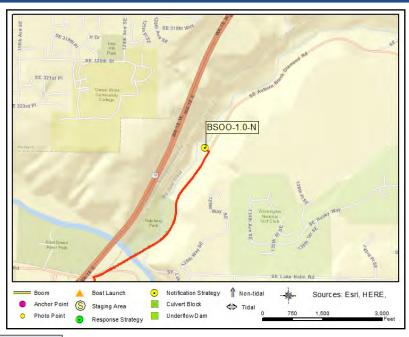
Washington Department of Fish and Wildlife

Alternate Contact : Region 4

425-775-1311

Nearest Address

13030 SE Auburn-Black Diamond Rd Auburn, WA 98092



Driving Directions

- 1. Start at I 5 Federal Way
- 2. Go south on I-5 toward 142b (0.48 miles)
- 3. At exit 142A bear right onto ramp and go on WA-18 E toward Auburn (6.4 miles)
- 4. Take ramp on the right to Auburn-Black Diamond Rd (0.22 miles)
- 5. Take ramp toward Black Diamond (0.26 miles)
- 6. At fork keep left on SE Auburn Black Diamond Rd (0.74 miles)
- 7. Finish at 13030 SE Auburn-Black Diamond Rd, 98092, on the left

Keta Creek Hatchery CRSP-1.2-N

Position - Location: 47° 17.436', -122° 3.653' 47° 17' 26.2", -122° 3' 39.2" 47.29061, -122.06089 Auburn

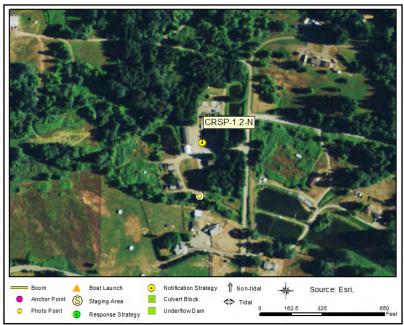
Strategy Objective: Notification: Notify Palmer Ponds to shut intakes. Delay salmon release from Palmer and Keta Creek.

Implementation: Call the Fisheries department at (206) 931-0652 and inform them of the situation. Ask them to notify Keta Creek and Palmer Ponds.

Field Notes: Keta Creek is fed by Crisp Creek and has no intakes on the green. Palmer Ponds has a water intake on the Green near RM 57

Watercourse: Creek - Spring fed, flows to Green River

Resources at Risk: Fish Hatchery, Salmon (Coho, Chinook and Chum), Tribal Lands/Resources, Water Intakes



Communication Process and Action:

Call the Fisheries department at (206) 931-0652 and inform them of the situation. Ask them to notify Keta Creek and Palmer Ponds.

Try the following numbers in order until someone at the hatchery is reached:

Keta Creek Hatchery: (253) 939-7738

Keta Creek Manager:

253-709-1813 (cell)

253-876-3341 (office)

Muckleshoot Indian Tribe:

(253) 939-3311

Water Quality Manager:

(253) 876-3360

Palmer Ponds:

253-350-4411

Note: The Muckleshoot Indian Tribe will determine whether or not they adjust their fish release schedules.

Keta Creek Hatchery

CRSP-1.2-N



CRSP-1.2-N Photo: Fish gates on Crisp Creek to block fish coming/going to Green River.

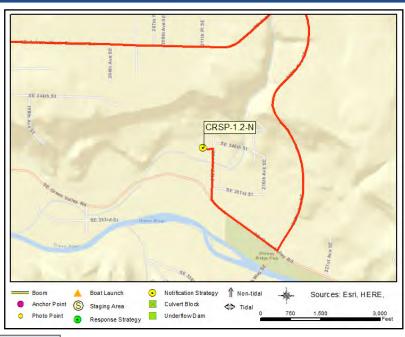
Site Contact

Muckleshoot Indian Tribe Fisheries Department

Primary Contact : 39015 172nd Ave SE Auburn, WA 98092 253-931-0652

Nearest Address

34809 212th Ave SE Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (8.94 miles)
- 4. Turn right on 152nd Ave SE (0.76 miles)
- 5. Continue on Kent Black Diamond Rd SE (3.18 miles)
- 6. Continue on SE Auburn Black Diamond Rd (2.75 miles)
- 7. Turn right on 218th Ave SE (1.37 miles)
- 8. Turn right on SE Green Valley Rd (0.4 miles)
- 9. Turn right onto 212th Ave SE (0.2 miles)
- 10. Take the second left into the Keta Creek Hatchery parking lot.

GREEN RIVER/DUWAMISH GRP OCTOBER 2015

Muckleshoot Tribe Fishermen/Boaters

GRD-37.9-N

Position - Location: 47° 16.494′, -122° 6.951′ 47° 16′ 29.7″, -122° 6′ 57.1″ 47.27491, -122.11585 Auburn

Notification: Alert fisheries to get biologists off river. Also alert Police to activate phone tree and get tribal fishermen off Strategy Objective:

Implementation: Call Muckleshoot Fisheries at (206) 931-0652 and explain the situation regarding the spill.

Inner-tubing and in-channel fishing from July through Sept. Otherwise fast water but fishermen on banks and in eddies. Field Notes:

Watercourse: River - Below a Dam -

Resources at Risk: Public Health and Safety, Tribal Lands/Resources



Communication Process and Action:

Call Muckleshoot Fisheries at (206) 931-0652 and explain the situation regarding the spill. Advise they update any biologists in the field and activate the phone tree to call back any tribal members that are out fishing.

Try the following numbers in order until someone is reached:

(253) 876-3360

(253) 939-3311

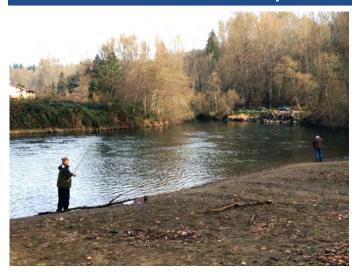
(253) 939-7738

(253) 876-3246

(253) 709-1813

Muckleshoot Tribe Fishermen/Boaters

GRD-37.9-N



GRD-37.9-N Photo: Local fishermen on the banks of the Green River in mid-November.

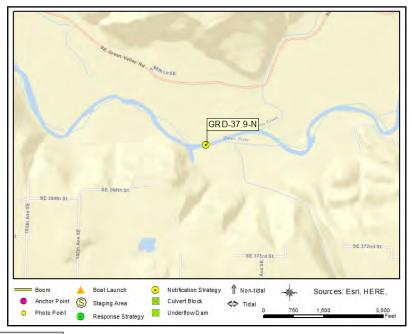
Site Contact

Muckleshoot Indian Tribe Fisheries Department

Primary Contact : 39015 172nd Ave SE Auburn, WA 98092 253-931-0652

Nearest Address

39015 172nd Ave SE Auburn, WA 98092



Driving Directions

- 1. Start at I 5 Federal Way
- 2. Go south on I-5 toward 142b (0.41 miles)
- 3. At exit 142A bear right onto ramp and go on WA-18 E toward Auburn (4.42 miles)
- 4. Take ramp on the right to WA-164 E/Auburn Wy toward Enumclaw (0.18 miles)
- 5. At fork keep left on WA-164 E toward Enumclaw/Muckleshoot Reservation (0.03 miles)
- 6. Make sharp left on WA-164 (Auburn Way S) (6.56 miles)
- 7. Turn left on SE 392nd St (0.29 miles)
- 8. Turn left at the sign for the Philip Starr building (0.1 miles)
- 9. Finish at 39015 172nd Ave SE, 98092, on the left

King County Parks GRD-42.0-N

Position - Location: 47° 16.850', -122° 2.627' 47° 16' 51.0", -122° 2' 37.6" 47.28083, -122.04379 Auburn

Strategy Objective: Notification: Notify King County Parks to close parks along river and evacuate visitors from the water and banks

Implementation: Call King County Roads Emergency Line at 206-296-8100 and request a callback from the Parks Duty Officer.

Field Notes: From June - Sept visitors float the river in inflatables. Fishermen use the river year-round from banksides and small boats.

Watercourse: River - Below a Dam - Low flow July - Sept

Resources at Risk: County Park, Public Health and Safety



Communication Process and Action:

Call King County Roads Emergency Line at 206-296-8100 and request a callback from the Parks Duty Officer. Inform the Parks Officer of the situation and advise they consider closing any parks along the river located downstream of the spill point. Request they evacuate visitors from the water and water's edge.

King County Parks GRD-42.0-N



GRD-42.0-N Photo: Recreational visitors floating the river just downstream of Flaming Geyser Park, during low water in July.

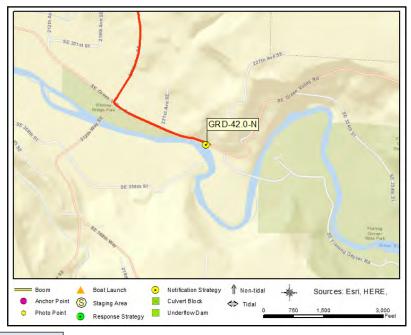
Site Contact

King County Parks and Recreation

Primary Contact: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

22165 SE Green Valley Rd Auburn, WA 98092



Driving Directions

- 1. From I-5 in Seattle, head south towards exit 149.
- 2. At exit 149 bear right onto ramp to WA-516 toward Kent/Des Moines (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (8.94 miles)
- 4. Turn right on 152nd Ave SE (0.76 miles)
- 5. Continue on Kent Black Diamond Rd SE (3.18 miles)
- 6. Continue on SE Auburn Black Diamond Rd (2.75 miles)
- 7. Turn right on 218th Ave SE (1.37 miles)
- 8. Turn left on SE Green Valley Rd (0.5 miles)
- 9. Finish at 22165 SE Green Valley Rd, 98092, on the right

Green River Filtration Plant

GRD-59.8-N

Position - Location: 47° 18.489', -121° 51.331' 47° 18' 29.3", -121° 51' 19.9" 47.30815, -121.85552 Ravensdale

Strategy Objective: Notification: Protect City of Tacoma water supply

Implementation: Call 253-502-8346 for Tacoma Water 24hr Emergency Line. Explain situation regarding the spill and advise they protect their intakes.

Field Notes:

Major intake is at RM 61 with additional intake near RM 59/filtration plant. Also have pipeline from upper watershed on North Fork Green River.

Watercourse: River - Below a Dam - Low flow July - Oct <500 cfs; max flow 12000 cfs

Resources at Risk: Fish Ladder(s), Public Health and Safety, Water Intakes



Communication Process and Action:

Call 253-502-8346 for Tacoma Water 24hr Emergency Line. Explain situation regarding the spill.

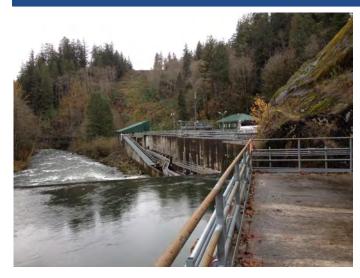
Call the following numbers in order until someone at Tacoma Water is reached:

Treatment Facility Manager 253-396-3172 (desk) 253-377-9117 (cell) Water Quality Manager 253-502-8808 (desk) 253-381-2434 (cell)

Tacoma Water may choose to deploy response equipment or shut off their intakes at the filtration plant. PUD staff may also self-deploy a protection/collection strategy above the diversion dam at RM 61 if equipment is available.

Green River Filtration Plant

GRD-59.8-N



GRD-59.8-N Photo: Adult salmon ladder and water diversion dam for City of Tacoma water supply. Looking W downstream from water intake on river right.

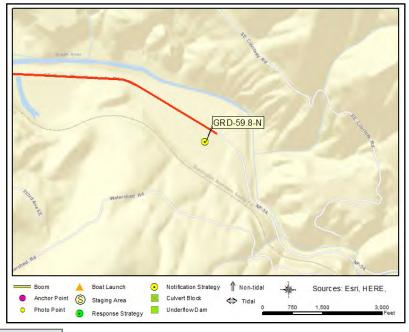
Site Contact

Tacoma Water

Emergency Contact: Green River Water Treatment Facility 36932 SE Green River Headworks Rd Ravensdale, WA 98051 253-502-8346

Nearest Address

36932 SE Green River Headworks Rd Ravensdale, WA 98051



Driving Directions

- 1. From I-5 S in Seattle, take exit 147 for S 272nd St.
- 2. Turn left onto S 272nd St.
- 3. In 6 mi, turn right onto Kent-Kangley Rd/WA-518 E.
- 4. In 11.4 mi, slight right onto Retreat-Kanaskat Rd.
- 5. In 3.1 mi, turn right onto Cumberland Kanaskat Rd/ Cumberland Kanasket Rd SE.
- 6. In 1.5 mi, turn left onto Green River Headworks Rd.
- 7. Drive to the security checkpoint and register with the guard.

Howard Hanson Dam GRD-64.6-N

Position - Location: 47° 16.648', -121° 47.277' 47° 16' 38.9", -121° 47' 16.6" 47.27747, -121.78795 Ravensdale

Strategy Objective: Notification: Notify dam of spill and potentially reduce flow

Implementation: Call the Reservoir Control Center at 206-764-6702 and inform them of the spill and response taking place.

Field Notes:

Watercourse: River - Below a Dam - Low flow July to October

Resources at Risk: USACE Management Area



Communication Process and Action:

Call the U.S. Army Corps of Engineers Reservoir Control Center at 206-764-6702 or 206-764-3584 (M-F 7:30-4:30) and explain the situation regarding the spill. Request they reduce flow if possible, for responder safety and better oil recovery rates.

If the Control Center cannot be reached, call these numbers in order until someone at the Army Corps has been notified:

District ECC: 206-764-6831 or 206-764-6910 Operations Supervisor: 206-764-6975

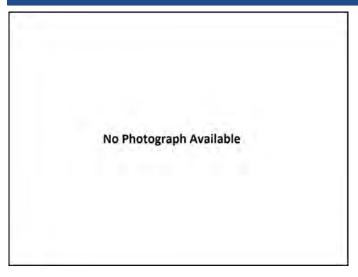
Environment Compliance Coordinator: 206-764-6717 or 360-825-3211

Project Lead: 206-764-6975

Project Safety Officer: 206-764-6975 Project Manager: 206-764-3717

Note: The Army Corps will make the decision whether or not they will adjust the flow through the dam.

Howard Hanson Dam GRD-64.6-N



GRD-64.6-N Photo: No photograph available for this location.

Site Contact

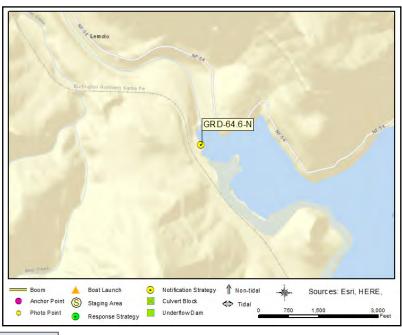
USACE Seattle District Reservoir Control Center Emergency Contact :

WA

206-764-6702

Nearest Address

31714 Cumberland Kanaskat Rd SE Ravensdale, WA 98051



Driving Directions

- 1. Start at I 5 Federal Way
- 2. At exit 142A bear right onto ramp and go on WA-18 E toward Auburn (11.22 miles)
- 3. Take ramp on the right to WA516/Se 272nd St toward Covington (0.42 miles)
- 4. Turn right on WA-516 (SE 272nd St) toward Covington (4.7 miles)
- 5. Continue on SE Kent Kangley Rd (3.42 miles)
- 6. Turn right on Retreat-Kanaskat Rd SE (Retreat Kanasket Rd SE) β.11 miles)
- 7. Bear right (0.03 miles)
- 8. Bear right on Cumberland Kanaskat Rd SE (Cumberland Kanasket Rd SE) (1.41 miles)
- 9. Follow Cumberland Kanaskat Rd SE to security checkpoint at Tacoma Water Green River Filtration Plant. The road to the dam is one lane radio-controlled and security must escort visitors.

APPENDIX 4C

Staging Area 2-Pagers

STAGING AREAS - LIST

SA-GRD-33.8 SA-GRD-41.5

WDFW Soos Creek Boat Launch

SA-GRD-33.8

Sta	ging	Area
Jtu	סייים	, ~: cu

Position - Location: 47° 18.062′, -122° 10.506′ 47° 18′ 3.7″, -122° 10′ 30.3″ 47.30103, -122.17510 Auburn

Comments: Small gravel lot, no facilities



Location Information

<u>Asset</u>	Type/Status	Amount/Number
		100 Gravel
Boat Dock(s)	No	
Boat Ramp(s)	Gravel	1 Partially blocked by log. Shallow water.
Cell Phone Coverage	Yes	
Estimated Lot Size		12500
Parking - Car	Gravel	15
Parking - Trailer	Gravel	8
Power	No	
Restroom	Restroom - None	
User Fee	No	
Waste Disposal	None	
Water (potable)	No	

GRP Response Strategies Served:

GRD-33.5

WDFW Soos Creek Boat Launch

SA-GRD-33.8



SA-GRD-33.8 Photo: From parking lot looking E down at gravel ramp. Note log preventing large boats from launching and visitors using lawn chairs in the river channel during low-water

Site Contact

WDFW Soos Creek Hatchery

Primary Contact: 253-931-3950

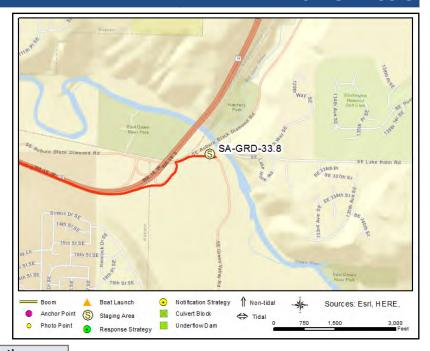
Washington Department of Fish and Wildlife

Alternate Contact : Region 4

425-775-1311

Nearest Address

12334 SE Green Valley Rd Auburn, WA 98092



Driving Directions

- 1. From I-5, take exit 142A to merge onto WA-18 E toward Auburn.
- 2. Drive 6.2 miles to the Auburn-Black Diamond Rd exit.
- 3. Take ramp right toward Black Diamond.
- 4. Turn right onto SE Auburn Black Diamond Rd.
- 5. In 300 feet take the next right onto SE Green Valley Rd.
- 6. In 350 feet the boat launch is on your left.

Whitney Bridge Boat Launch

SA-GRD-41.5

 00	Area

Position - Location: 47° 16.980', -122° 3.278' 47° 16' 58.8", -122° 3' 16.7" 47.28300, -122.05464 Auburn

Comments:

Paved lot, pit toilet, minimal facilities.



GRP Response Strategies Served:

Location Information

<u>Asset</u>	Type/Status	Amount/Number
		0
		75 % Asphalt
Boat Dock(s)	No	
Boat Ramp(s)	Gravel	1 Easy slope. Shallow cobble at end
Boat Ramp(s)	Natural (Grass/Dirt)	1 Footpath for hand launch - mud and grass
Cell Phone Coverage	Yes	
Estimated Lot Size		6800
Parking - Car	Marked	23
Parking - Trailer	Gravel	5 Parallel lot above boat ramp
Power	No	
Restroom	Restroom - None	
User Fee	No	
Waste Disposal	Trash Receptacle	1
Water (potable)	No	

Whitney Bridge Boat Launch

SA-GRD-41.5



SA-GRD-41.5 Photo: From N side of bridge looking S down gravel boat ramp at Green River.

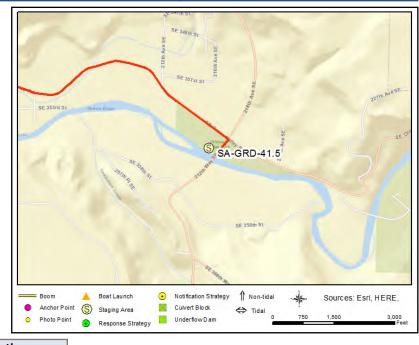
Site Contact

King County Parks and Recreation

Land/Property Owner: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

21907 SE Green Valley Rd Auburn, WA 98092



Driving Directions

- 1. From I-5, take exit 142A to merge onto WA-18 E toward Auburn.
- 2. Drive 6.2 miles to the Auburn-Black Diamond Rd exit.
- 3. Take ramp right toward Black Diamond.
- 4. Turn right onto SE Auburn Black Diamond Rd.
- 5. In 300 feet take the next right onto SE Green Valley Rd.
- 6. In 7.4 mi, turn right onto 212th Way SE.
- 7. In 250 feet, before the bridge, the boat ramp is on your left. The staging area is to your right.

APPENDIX 4D

Boat Launch 2-Pagers

BOAT LAUNCHES - LIST

BL-GRD-18-7 BL-GRD-26.8 BL-GRD-33.8 BL-GRD-41.5

Van Doren's Landing Park

BL-GRD-18.7

Boat Launch Location

Position - Location: 47° 24.317', -122° 16.426' 47° 24' 19.0", -122° 16' 25.6" 47.40528, -122.27377 Kent

Comments:

Hand launch only. Can drive partway down ramp but last 20' have narrow sides and mud bottom.



Location Information

<u>Asset</u>	Type/Status	Amount/Number
		2 Picnic shelters
		100 Asphalt
Boat Ramp(s)	Natural (Grass/Dirt)	1 Concrete entrance to 20' of narrow mud.
Cell Phone Coverage	Yes	
Estimated Lot Size		11000 Additional small lot 1/2 mi N
Parking - Car	Marked	38 Additional 8 spaces 1/2 mile N
Parking - Trailer	Other	8 If parking sideways across car spots
Power	Yes	
Restroom	Restroom - Flush	2
User Fee	No	
Water (potable)	Yes	

GRP Response Strategies Served:

GRD-21.7, GRD-15.0, GRD-17.1, GRD-20.5, GRD-19.4

Van Doren's Landing Park

BL-GRD-18.7



SA-GRD-18.7 Photo: From mid-ramp looking down at the narrowest section, NW towards the Green River.

Site Contact

City of Kent Parks, Recreation and Community Services Land/Property Owner: 253-856-5000

Nearest Address

21901 Russell Rd Kent, WA 98032



Driving Directions

- 1. From I-5 in Seattle, take exit 149 toward Kent/Des Moines.
- 2. Bear right onto ramp to WA-516 (0.26 miles)
- 3. Turn left on WA-516 (S Kent Des Moines Rd) (0.29 miles)
- 4. Turn left on Military Rd S (0.25 miles)
- 5. Turn right on \$ 231st Way (0.85 miles)
- 6. Turn left on Russell Rd (0.5 miles)
- 7. Turn left into Van Doren's Landing Park (just past the kennels).

King County Emergency Rescue boat launch

BL-GRD-26.8

Boat Launch Location

Position - Location: 47° 21.818', -122° 13.220' 47° 21' 49.1", -122° 13' 13.2" 47.36364, -122.22034 Kent

Comments: Natural gravel and mud launch used for emergency rescues.



Location Information

<u>Asset</u>	Type/Status	Amount/Number
Boat Ramp(s)	Natural (Grass/Dirt)	1
Boathouse	No	
Cell Phone Coverage	Yes	
Estimated Lot Size		3000 Gravel/mud
Parking - Car	Gravel	2 May be able to use lot across road
Parking - Trailer	Gravel	1
Power	No	
User Fee	No	
Waste Disposal	Other	0
Water (potable)	No	

GRP Response Strategies Served:

GRD-23.9

King County Emergency Rescue boat launch

BL-GRD-26.8



SA-GRD-26.8 Photo: Looking E uphill from water's edge at primitive dirt launch.

Site Contact

King County Parks and Recreation

Land/Property Owner: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

26427 Green River Rd Kent, WA 98030



Driving Directions

- 1. From I-405 take exit 2 and follow ramp right for WA-167 South toward Auburn / Kent.
- 2. In 5.0 mi, take ramp right for 84th Ave S toward N Central Ave.
- 3. In 0.2 mi, turn left onto 84th Ave S.
- 4. In 2 mi, turn left onto S 259th St.
- 5. In 0.6 mi at curve, turn right to stay on Green River Rd.
- 6. In 0.2 mi, just past the gravel parking lot on the left, the gate to the boat ramp is on your right between two no-parking signs.

WDFW Soos Creek Boat Launch

BL-GRD-33.8

Boat Launch Location

Position - Location: 47° 18.062′, -122° 10.506′ 47° 18′ 3.7″, -122° 10′ 30.3″ 47.30103, -122.17510 Auburn

Comments: Hand-launch only, sandbar mid-channel, upstream of log jam



Location Information

<u>Asset</u>	Type/Status	Amount/Number
		100 Gravel
Boat Dock(s)	No	
Boat Ramp(s)	Gravel	1 Partially blocked by log. Shallow water.
Cell Phone Coverage	Yes	
Estimated Lot Size		12500
Parking - Car	Gravel	15
Parking - Trailer	Gravel	8
Power	No	
Restroom	Restroom - None	
User Fee	No	
Waste Disposal	None	
Water (potable)	No	

GRP Response Strategies Served:

GRD-33.5

WDFW Soos Creek Boat Launch

BL-GRD-33.8



SA-GRD-33.8 Photo: From parking lot looking E down at gravel ramp. Note log preventing large boats from launching and visitors using lawn chairs in the river channel during low-water

Site Contact

WDFW Soos Creek Hatchery

Primary Contact: 253-931-3950

Washington Department of Fish and Wildlife

Alternate Contact : Region 4

425-775-1311

Nearest Address

12334 SE Green Valley Rd Auburn, WA 98092



Driving Directions

- 1. From I-5, take exit 142A to merge onto WA-18 E toward Auburn.
- 2. Drive 6.2 miles to the Auburn-Black Diamond Rd exit.
- 3. Take ramp right toward Black Diamond.
- 4. Turn right onto SE Auburn Black Diamond Rd.
- 5. In 300 feet take the next right onto SE Green Valley Rd.
- 6. In 350 feet the boat launch is on your left.

Whitney Bridge Boat Launch

BL-GRD-41.5

Boat Launch Location

Position - Location: 47° 16.980′, -122° 3.278′

47° 16' 58.8", -122° 3' 16.7"

47.28300, -122.05464

Auburn

Comments:

Gravel launch. Very shallow water in summer. Alternate hand launch on other side of bridge.



GRP Response Strategies Served:

GRD-41.5, GRD-41.4

Location Information		
<u>Asset</u>	Type/Status	Amount/Number
		0
		75 % Asphalt
Boat Dock(s)	No	
Boat Ramp(s)	Gravel	1 Easy slope. Shallow cobble at end
Boat Ramp(s)	Natural (Grass/Dirt)	1 Footpath for hand launch - mud and grass
Cell Phone Coverage	Yes	
Estimated Lot Size		6800
Parking - Car	Marked	23
Parking - Trailer	Gravel	5 Parallel lot above boat ramp
Power	No	
Restroom	Restroom - None	
User Fee	No	
Waste Disposal	Trash Receptacle	1
Water (potable)	No	

Whitney Bridge Boat Launch

BL-GRD-41.5



SA-GRD-41.5 Photo: From N side of bridge looking S down gravel boat ramp at Green River.

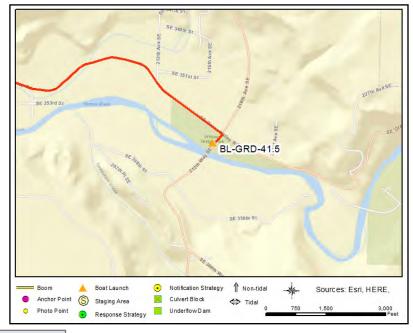
Site Contact

King County Parks and Recreation

Land/Property Owner: 201 S. Jackson Street, # 700 Seattle, WA 98104 206-296-8100

Nearest Address

21907 SE Green Valley Rd Auburn, WA 98092



Driving Directions

- 1. From I-5, take exit 142A to merge onto WA-18 E toward Auburn.
- 2. Drive 6.2 miles to the Auburn-Black Diamond Rd exit.
- 3. Take ramp right toward Black Diamond.
- 4. Turn right onto SE Auburn Black Diamond Rd.
- 5. In 300 feet take the next right onto SE Green Valley Rd.
- 6. In 7.4 mi, turn right onto 212th Way SE.
- 7. In 250 feet, before the bridge, the boat ramp is on your left. The staging area is to your right.